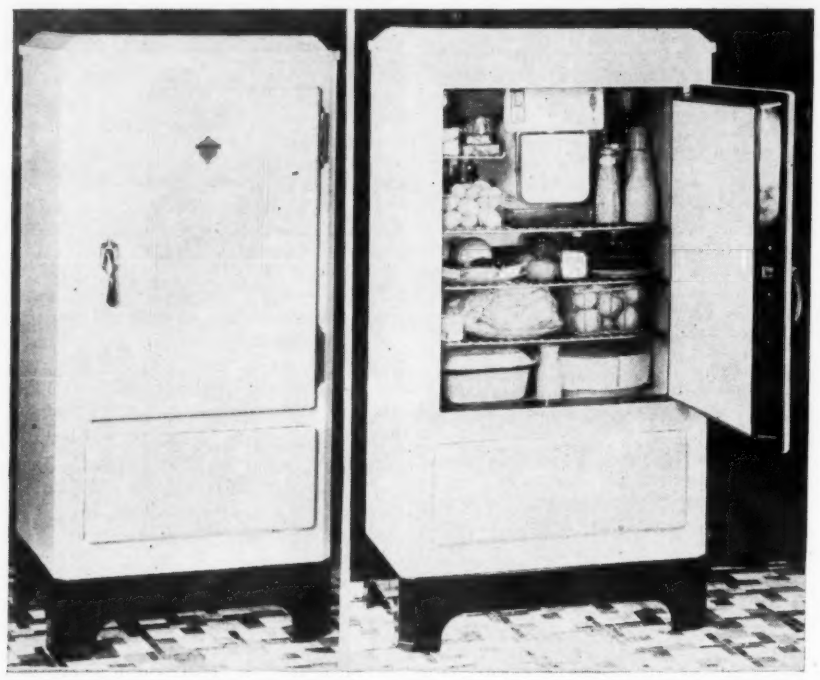
Landers, Frary & Clark's Refrigerator



Model No.	Storage Capacity Cu. Ft.	Shelf Area Sq. Ft.	No. of Ice Trays	No. of Cubes	Lbs. of Ice	Exterior Dimensions—Height	Width	Depth
1444	4.2	9.1	2	56	4	53½	25½	21¾
1455	5.0	10.8	3	84	6	56½	26½	23
1466	6.1	11.7	3	84	6	59¼	30½	23½
1477	7.1	14.5	4	112	8	64	30½	23½
1488	8.1	15.9	4	112	8	62½	34	23¾

Models 1866, 1877, and 1888 are the same in size and specifications as models 1466, 1477, and 1488, with the exception that they are finished in porcelain exteriors, and include utility basket, vegetable container, and "Conserverette" as standard equipment. Other models have Dulux exteriors; interior is porcelain on all models. Right-hand door is regularly furnished, but models can be equipped with left-hand door, if desired.

Seeger Cabinets Used in 1936 Line of Landers, Frary & Clark Units

(Concluded from Page 1, Column 2)

have a vegetable container, of porcelain, which fits into the bottom compartment shelf. One rubber ice tray is furnished with all models, and metal trays have an easy tray release which frees them should they become stuck in the freezing compartment.

Freezing compartments of all models have doors, and the refrigerant circulates entirely around the compartment. In larger models, it circulates through the ice tray shelves as well. Cold control is nine-point, with manual defrosting.

Multicell fiber insulation, pre-tested, damp-proofed, and hydrolene-sealed, is used in all models.

Rotary Compressor Used

Powering the units is Universal's rotary compressor, quite similar in design to the one introduced on Frigidaire models this year. The unit has three moving parts, operating in a continuous bath of oil.

Deluxe models, of which there are three, ranging in size from 6 to 8-cu. ft. capacity, have as additional equipment a utility basket, designed as a receptacle for the dozens of small articles that otherwise clutter up a refrigerator shelf, and made of heavily tinned, rust-proof wire; a vegetable container, and a "Conserverette," six deep frosted glass dishes that fit on a revolving base, designed for the preservation of left-overs. The dishes are mounted on a platform which may be brought to the shelf front for easy removal.

Model 1444, smallest in the line, has a capacity of 4.2 cu. ft., and shelf area of 9.1 sq. ft. It has two ice trays, with a capacity of 56 cubes, or 4 lbs. of ice, per freezing.

Large Size Models

Model 1455 has a capacity of 5 cu. ft., a shelf area of 10.8 sq. ft., and three ice trays that turn out 84 cubes, or 6 lbs. of ice, at a freezing; model 1466 has a capacity of 6.1 cu. ft., a shelf area of 11.7 sq. ft., and the same number of ice trays.

Models 1477 and 1488 are the large units in the line, the first having a capacity of 7.1 cu. ft. and a shelf area of 14.5 sq. ft., and the second a capacity of 8.1 cu. ft. and a shelf area of 15.9 sq. ft. Both models have four ice trays, with a capacity of 112 cubes, or 8 lbs. of ice, at a freezing.

Models 1866, 1877, and 1888 are identical in size and capacity with models 1466, 1477, and 1488, with the exception that they have porcelain exteriors and the extra convenience equipment mentioned above. All models are regularly fitted with right-hand door; left-hand door is optional.

January Sales Highest In That Month in Industry History

(Concluded from Page 1, Column 1)

the association's history. Previous high January mark had been 93,367, established last year.

Sales in the United States alone totaled 108,985 units, with the figure swelled by shipment of 459 units to Canada and 7,186 units to other foreign countries.

Reporting to Nema's Household Refrigeration Section for January were Apex, Crosley, Frigidaire, General Electric, Gibson, Leonard, Kelvinator, Norge, Servel, Stewart-Warner, Sunbeam, Uniflow, Universal Cooler, and Westinghouse.

Companies not reporting household sales for January included Jomoco, Inc., Merchant & Evans Co., and Sparks-Withington Co.

In the tabulation of sales by states during the month, Pennsylvania pushed New York out of the first place position it had held for some time, but only by a matter of 895 units. Pennsylvania's total for the month was 10,956; New York's, 10,061. California, with shipments of 8,927 units, was third, and Illinois, with 7,434, was fourth. Ohio was a close fifth with 7,288 unit shipments.

The following tabulation shows the distribution of sales by states for January:

States and Territories	Quantity of Household Low Sides
Alabama	1,077
Arizona	447
Arkansas	966
California	8,927
Colorado	915
Connecticut	1,101
Delaware	247
Dist. of Columbia	1,065
Florida	1,625
Georgia	1,083
Idaho	516
Illinois	7,434
Indiana	3,960
Iowa	1,719
Kansas	1,773
Kentucky	1,533
Louisiana	1,374
Maine	223
Maryland	1,027
Massachusetts	3,742
Michigan	4,906
Minnesota	1,492
Mississippi	563
Missouri	3,523
Montana	443
Nebraska	1,241
Nevada	171
New Hampshire	219
New Jersey	4,641
New Mexico	228
New York	10,061
North Carolina	1,273
North Dakota	170
Ohio	7,288
Oklahoma	2,098
Oregon	2,216
Pennsylvania	10,956
Rhode Island	395
South Carolina	676
South Dakota	307
Tennessee	1,638
Texas	5,165
Utah	396
Vermont	108
Virginia	1,481
Washington	3,387
West Virginia	984
Wisconsin	2,076
Wyoming	129
Total United States	**108,985**
Canada	459
Other Foreign (Including U. S. Possessions)	7,186
Total for World	**116,630**

116,586 Household Refrigerators Shipped To Distributors in January by 14 Nema Companies

The following 14 member companies of the Refrigeration Division of the National Electrical Manufacturers Association (Nema) reported household refrigerator sales for January, 1936: Apex Electrical Mfg. Co., Crosley Radio Corp., Frigidaire Corp., General Electric Co., Gibson Electric Refrigeration Co., Kelvinator Corp., Leonard Refrigerator Co., Norge Corp., Servel, Inc. (export only), Stewart-Warner Corp., Sunbeam Electric Mfg. Co., Uniflow Mfg. Co., Universal Cooler Corp., and Westinghouse Electric & Mfg. Co. Member companies not reporting included: Jomoco, Inc., Merchant & Evans Co., and Sparks-Withington Co.

The sales of the reporting companies do, however, include units manufactured for the following concerns: Major Appliance Corp., Montgomery Ward & Co., Potter Refrigerator Corp., Sears, Roebuck & Co., and Truscon Steel Co.

	SALES FOR JANUARY, 1936					
	Domestic		Canadian		Other Foreign	
Lacquer (Exterior) Cabinets Complete	Quantity	Value	Quantity	Value	Quantity	Value
1. Chest	85	$ 4,146	3	$ 146	36*	$ 1,754*
2. Less than 3 cu. ft.	25	1,507	.....	.....	10	591
3. 3 to 3.99 cu. ft.	3,421	198,737	11	627	1,200	69,528
4. 4 to 4.99 cu. ft.	14,349	950,178	255	17,592	1,877	124,027
5. 5 to 5.99 cu. ft.	23,766	1,867,356	19	1,406	1,053	82,916
6. 6 to 6.99 cu. ft.	25,045	2,055,453	23	2,064	570	50,932
7. 7 to 7.99 cu. ft.	10,491	1,111,356	72	8,043	345	37,037
8. 8 to 9.99 cu. ft.	1,229	145,440	.....	.....	36	4,838
9. 10 to 12.99 cu. ft.	.....	.....	.....	.....	5	903
10. 13 cu. ft. and up	.....	.....	.....	.....	.....	.....
11. Total Lacquer	**78,411**	**6,334,173**	**383**	**29,878**	**5,060**	**369,018**
Porcelain (Exterior) Cabinets Complete						
12. Up to 4.99 cu. ft.	821	60,628	18	1,746	10	824
13. 5 to 5.99 cu. ft.	3,415	294,074	3	251	57	5,109
14. 6 to 6.99 cu. ft.	6,880	613,873	.....	.....	89	9,221
15. 7 to 7.99 cu. ft.	2,977	349,538	1	107	230	28,718
16. 8 to 9.99 cu. ft.	1,590	213,554	5	689	91	13,181
17. 10 to 12.99 cu. ft.	293	51,892	2	438	30	5,719
18. 13 cu. ft. and up	167	38,123	2	424	42	9,585
19. Total Porcelain	**16,143**	**1,620,682**	**31**	**3,655**	**549**	**72,357**
20. Total—Lines 11 and 19	**94,554**	**7,954,855**	**414**	**33,533**	**5,609**	**441,375**
21. Separate Systems ¼ Hp. or Less	14,286	524,511	1	44	1,461	57,035
22. Separate Household Evaporators	145	3,020	.....	.....	116	2,234
23. Total—Lines 20, 21, 22	**108,985**	.....	**415**	.....	**7,186**	.....
24. Condensing Units ¼ Hp. or Less	208	13,212	11	629	230	14,342
25. Cabinets—No Systems	999	27,516	1†	107†	167	4,707
26. Total Household	.....	**$8,523,114**	.....	**$34,099**	.....	**$519,693**

*This figure to be subtracted from total.
†This figure includes sales reported by several companies, and are indicated in the report as to be subtracted from the totals.

INFORMAL TALK NUMBER 41

Your Own Industry Supervises R-A-C-I Training

When you employ an R-A-C-I Trained man for installation and service, or other work requiring technical knowledge, you know you are getting a man who is TRAINED RIGHT. Your own industry has supervised his training.

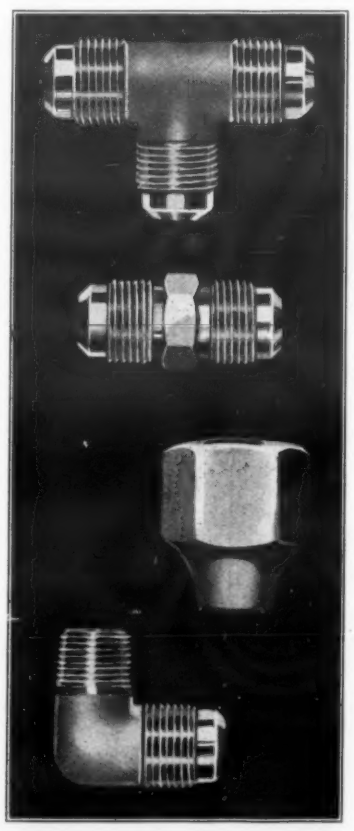
The R-A-C-I Board of Governors now consists of factory engineers appointed by Kelvinator, Westinghouse, Norge, Servel, Stewart-Warner and others. These men meet with us regularly and ACTUALLY plan and guide this remarkable training. These manufacturers and twenty-five others endorse the training and cooperate with the Institute to give YOU the properly trained men you need.

Employers—Ambitious men—Write for facts. Learn how our 20 years' experience in training men can help you both.

The REFRIGERATION AND AIR CONDITIONING INSTITUTE
2130-2158 LAWRENCE AVENUE • CHICAGO

The Officially Endorsed School

SANCTIONS



The world is agog today about the word "sanctions" as applied to the Italo-Ethiopian conflict and in this particular case it means a measure of restraint on normal trade.

Usually "sanctioned" implies that a practice or a product is authorized for use and is an integral part of the industry conferring the "sanctions."

Years ago Commonwealth Brass Pipe & Tube Fittings were accorded the approval of the refrigeration industry and today more and more organizations have named "Commonwealth" as their preferred source of Seepage Proof Fittings.

We are proud of the record of service made by Commonwealth Fittings and will always strive to prove worthy of the "Sanctions" bestowed on our fittings.

BUILT RIGHT
TO STAY TIGHT

COMMONWEALTH BRASS CORP.
Commonwealth at Grand Trunk R.R.
DETROIT, MICH.

Trenton Auto Radiator Wks., Trenton, N. J.
Please send me at once your 1936 catalog on Refrigerating Equipment.
NAME .....
ADDRESS .....
E.R.N.

Sign attach to your letterhead and Mail

—for the 1936

KRAMER CATALOG

ON

Refrigerating Equipment

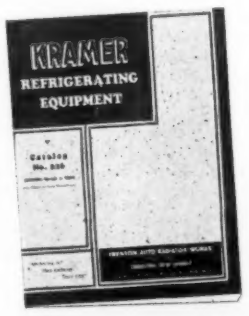
with B.T.U. Values and List Prices of all Coils at a glance, and short cuts in Engineering Commercial Applications

It Discusses:

1. Heat Exchange Engineering
2. Staggered Tubes
3. Internal Turbulence
4. Solid Fins
5. Fused Bond
6. Electro-tin Plating
7. All-Copper

It Lists:

1. More than 1500 Coils for Walk-in Coolers
2. Three Types of Unit Coolers
3. "AIRLATOR" Drip-Pan Coils
4. More than 2700 Display Case Coils
5. Complete Listings of Small Box Coils
6. Sheet Coils
7. Commercial Ice Cube Makers
8. Bottle Cooling Coils
9. Air and Water Cooled Condensers
10. Domestic Ice Cube Makers



TRENTON AUTO RADIATOR WORKS
Main Offices and Factory, TRENTON, NEW JERSEY
NEW YORK: 210-212 West 65th Street PITTSBURGH: 5114 Liberty Avenue

THE NEWSPAPER OF THE INDUSTRY

ELECTRIC REFRIGERATION NEWS

WRITTEN TO BE READ ON ARRIVAL

Registered U. S. Patent Office

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ISSUED EVERY WEDNESDAY

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DETROIT, MICHIGAN, MARCH 18, 1936

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THREE DOLLARS PER YEAR
TEN CENTS PER COPY

Crosley Offers 5-Yr. Service For $5 Extra

Guarantee Covers Both Open & Sealed Type Compressors

CINCINNATI—A five-year protection plan on all Crosley Shelvador refrigerators, optional at an added charge of $5 to the suggested list price, has been announced by Crosley Radio Corp.

In a telegram sent to all Crosley distributors, H. E. Richardson, general sales manager, stated that the plan is retroactive and can be applied to all 1936 models that have been sold. The guarantee applies to both the open and sealed type compressor units.

Formula for Setting Cost of Kitchen Is Adopted by Clinic

MANSFIELD—Sixteen editors of women's and home magazines and home economists met at the second annual Westinghouse Kitchen Clinic here March 2 and 3 for two days of study and discussion concerning new standards of kitchen arrangements and equipment.

A definite formula for ascertaining the requirements of standard kitchens was one of the accomplishments of the clinic, which set a percentage basis for calculating complete kitchen costs for residences in various price groups.

After study of survey data indicating that a high percentage of meals in the home are not eaten in the dining room, it was agreed that residences costing under $20,000 should provide space either in the kitchen proper or in a breakfast alcove for serving breakfast and meals at irregular hours.

Discussion was based on the three major divisions of the kitchen agreed upon when the clinic first met a year ago: the refrigeration and preparation center, sink and dishwasher center, and range and serving center.

Under the direction of Irving W. Clark, in charge of Westinghouse kitchen planning, the clinic considered cabinet and storage space design and requirements, kitchen equipment expenditures, size of kitchens, necessary accessories, standard package centers, and design features of each refrigerator, range, and dishwasher unit centers.

A. E. Allen, Westinghouse vice president, who opened the meeting, prophesied that the kitchen would some day be the most beautiful room in the house.

"I believe that in 1936, the electric kitchen is going far as a packaged article at a price not prohibitive to the average home," Mr. Allen said. He compared the kitchen and bath room, saying that no one building today would think of installing only part of the bath-room equipment, the rest to be put in at a later date. It would be equally absurd, he believes, not to consider the kitchen and its built-in equipment in the same light as the bathroom.

"In those cases where refrigerator,

(Concluded on Page 2, Column 3)

Illinois to Conduct Air-Conditioning Conference

URBANA, Ill.—Persons untrained in the technical and engineering phases of air conditioning will be given an opportunity to obtain some practical information on the subject at the Conference on Air Conditioning, which the Department of Mechanical Engineering of the University of Illinois is sponsoring here May 4 and 5.

Subjects to be considered at the conference include clarification of the term "air conditioning," simple calculations required, explanations of the functions and limitations of available equipment, and the results of research relating to health and comfort. Prof. P. E. Mohn is chairman of the committee on arrangements.

No registration fee will be charged those who attend the conference.

Dean M. L. Enger of the College of Engineering, director of the Engineering Experiment Station, will preside at the opening session of the conference.

Dr. A. C. Willard, president of the university and a well-known authority on ventilation, will then speak on "What Is Air Conditioning?" F. C. Houghten, director of the A.S.H.V.E. research laboratory, Pittsburgh, will explain "Comfort Conditions and Physiological Factors," after which Prof. A. P. Kratz, research professor of mechanical engineering, will speak on "Physical Factors Affecting Comfort."

Afternoon session on the first day will be presided over by Prof. O. A. Leutwiler, and will feature addresses by Prof. P. E. Mohn on "Essential

(Concluded on Page 8, Column 3)

Greusel Renamed Head Of Wisconsin Group

MILWAUKEE—Frank W. Greusel was unanimously re-elected president of the Wisconsin Radio, Refrigeration, and Appliance Association at a recent meeting of the board of directors.

Other officers elected for the ensuing year are: retail vice president, A. F. Seidel; wholesale vice president, A. R. Strong; treasurer, A. Van Antwerpen; secretary, Gordon Ische; chairman of board of directors, W. F. Seemuth; and honorary chairman of board of directors, Michael Ert. Mr. Seidel is the only new officer.

Three new directors were also elected for terms of three years each. They are: M. G. Hammergren, of Wurlitzer's; Mr. Ische, of Ische Bros.; and G. J. Weiland of George J. Weiland Co.

Sale of a minimum of 10,000 electric refrigerators in Milwaukee during

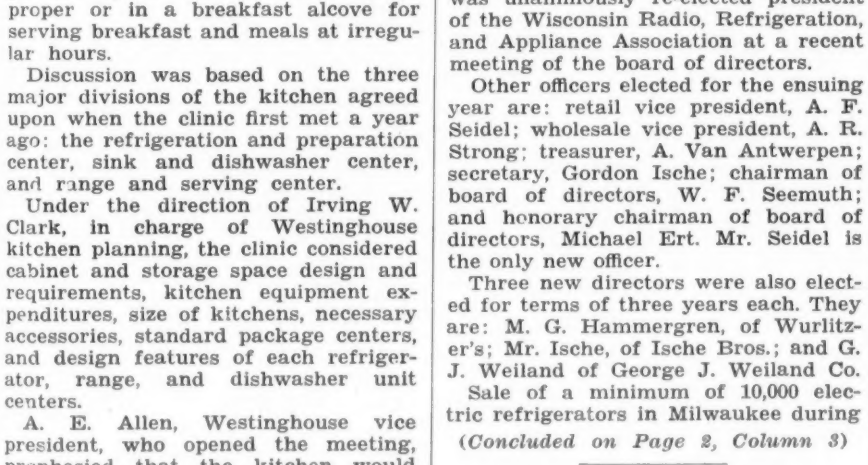
(Concluded on Page 2, Column 3)

F-M Names Distributors In Memphis, Nashville

CHICAGO—Appointment of Mississippi Valley Furniture Co., Memphis, Tenn., and Keith Simmons Co., Nashville, Tenn., as distributors of Fairbanks-Morse electric refrigerators was recently announced by W. Paul Jones, general manager of home appliance division of Fairbanks, Morse & Co.

Keith Simmons Co. will cover central Tennessee and the bordering counties in Kentucky; Mississippi Valley Furniture Co., western Tennessee and part of Arkansas and Missouri.

"Riding the Range" for 1936 Profits



Sales Promotion Manager W. K. Holland of Union Electric Light & Power Co., St. Louis, outlines the four-months' advertising and promotion campaign, as I. A. Olian and L. Hornsbein, Famous-Barr Co.; A. R. Lindburg, Westinghouse distributor; Godfrey Strelinger, assistant to vice president, Kelvinator Corp.; William Stoner, Witte Hardware Co., listen.

4-Month Range Drive Opens in St. Louis Area

Utility Cooperates with Distributors & Dealers In Campaign

ST. LOUIS—An intensive four-months' campaign to increase the sales of electric ranges in the St. Louis territory, sponsored by Union Electric Light & Power Co. with the cooperation of dealers, distributors, and other utility companies, got under way here March 10. The drive will close June 30.

The campaign, which includes radio, billboard, newspaper, and direct mail advertising, is built along lines similar to the drive which Union Electric, through the Electric Refrigeration Council of St. Louis, carried through on electric refrigerators a few years ago.

Cooperating with Union Electric in the drive are: East St. Louis (Ill.) Light & Power Co., Alton (Ill.) Light & Power Co., Electric Cookery Council of St. Louis, distributors of 13 makes of electric ranges, and more than 200 retail dealers in the St. Louis territory.

The drive covers St. Louis, East St. Louis, and Alton, Ill., and St. Louis, St. Charles, Franklin, Jefferson, and St. Francois counties, Missouri—a territory which includes some 300,000 wired homes.

Nearly 600 dealers and salesmen heard Union Electric officials get the campaign off to a flying start at a dinner meeting March 9 in the Gold Room of Hotel Jefferson. C. E. Michel, vice president of the utility, presided at the meeting.

In his opening speech, Mr. Michel reviewed the results which cooperative promotion of electric refrigerator sales had achieved in the St. Louis territory, and pointed out that the present campaign was intended to produce similar or even better results for electric ranges.

A few years ago, Mr. Michel said, Union Electric organized the Electric Refrigeration Bureau of St. Louis, to increase refrigerator sales in its territory, and inaugurated a vigorous campaign of sales promotion. Result was that the number of refrigerators increased from 50,000, when the drive started, to more than 150,000 at present, to give the St. Louis market a saturation point of 50%.

During the past two years, Mr. Michel added, Union Electric has devoted considerable effort to increasing electric range sales. Results of this preliminary work, he said, forecast success for the present campaign. Electric range sales in St. Louis during 1935 were 400% greater than in 1934.

National Electrical Manufacturers Association was represented at the dinner meeting by D. C. Marble of Edison General Electric Co., who outlined the promotional plans which Nema and Edison Electric Institute will carry on through the Kitchen Modernization Bureau this year to increase the sales of refrigerators, ranges, water heaters, and other appliances.

W. K. Holland, Union Electric's sales promotion manager, next made a dramatic presentation of the advertising and promotional materials which will back up the drive.

Advertising media to be used include radio, with spot announcements during the day and evening on all four St. Louis stations; outdoor, with 24-sheet billboards in strategic locations; newspaper, with a full month of bureau-sponsored ads in all three St. Louis dailies; and direct mail, with personalized mailing pieces going to each dealer's best prospects over the dealer's own signature.

Window displays, which tie-in the electric range with the electric refrigerator in selling appeal, are also available to cooperating dealers.

All of the advertising has one central theme: "Ranges Go Electric," and is designed to drive home the idea that the electric range is no longer a novelty or a luxury, but an accepted factor in American living.

At the dinner meeting, the advertising material was dramatically presented on a stage at one end of the banquet hall. Footlights and spotlights focused attention on the stage,

(Concluded on Page 2, Column 1)

Senate Opens Hearings On Bill to Extend Housing Act

Service Engineers Meeting Dates Are Changed

CHICAGO—Dates for the annual convention of the Refrigeration Service Engineers Society have been set for Nov. 11, 12, and 13, according to an announcement made at the headquarters of the society here. The sessions will be held in Memphis.

Kelvinator Reports February Shipments Of 29,911 Products

DETROIT—Kelvinator Corp. reports total shipments for February of 29,911 units, including household and commercial refrigeration, electric and gas ranges, oil burners, and air conditioning equipment.

This figure represents a 75% increase over the shipments during the same period last year, H. W. Burritt, vice president in charge of sales, reports. Unfilled orders at the end of February were also substantially ahead of the figures a year ago, Mr. Burritt said.

Utility Report Shows Big Sales Gain for Southern California

LOS ANGELES—Sales of household electric refrigerators in the territory of Southern California Edison Co., Ltd., during 1935 totaled 35,523 units, almost double the 18,060 sold in 1934, a summary of dealers' reports to the utility company for the year shows.

Sales of electric ranges more than doubled for the year, 5,645 units being reported as compared with 2,690 for 1934. Water heater sales increased four-fold, with 1935 sales showing 2,973 units, against only 620 in 1934.

Sales reported include only those made in Edison territory, and does not include any part of the city of Los Angeles except recent annexations. Sales made in the territory served by Los Angeles Gas & Electric Corp., or in Pasadena, Glendale, or Burbank, are also excluded.

Refrigeration sales reached their high point for the year in July, when 529 dealers reported sales of 5,871 units to the utility. June was the next best month, with sales of 4,433 units; and August was third, with sales of 4,364 units. May was fourth with 4,247 unit sales. May, June, July, and August were the only months of the year in which refrigerator sales topped the 4,000 mark.

Totals for the year, month by month, follow:

January, 777; February, 1,153; March, 1,740; April, 3,821; May, 4,247; June, 4,433; July, 5,871; August, 4,364; September, 3,318; October, 1,977; November, 1,928; December, 1,894.

Sales reports by dealers have been broken down into marketing areas in

(Concluded on Page 2, Column 5)

Appliances Not Included in Fletcher Bill, But May Be Before Passage

WASHINGTON, D. C., March 16—The Senate Banking and Currency Committee today held first hearings on the Fletcher bill which would extend, with amendments, Title 1 of the National Housing Act under which home modernization loans, including those for the financing of electric refrigerator sales, have been granted. The original act expires April 1 of this year.

Although the Fletcher bill does not provide for the financing of appliances, Federal Housing Administration officials declared that there is a possibility that some provision for electric refrigerator financing may be included in the bill by the time that it becomes a law.

The Fletcher bill provides for a gradual withdrawal of the Federal government from modernization loan insurance. Observers here believe that Title 1, providing for modernization repair and improvement, will be extended through March 31, 1937, but no longer.

Stewart McDonald, FHA administrator, declared before the committee today that he is making plans for a 30% reduction in the payroll of the housing administration effective April 1, and for a tapering off of loan insurance for home modernization. He appeared in support of the Fletcher bill.

"The work of the FHA in insuring loans for modernization and repair is largely completed," Mr. McDonald testified.

Mr. McDonald computed that about $1,125,000,000 has gone into repair and modernization work. Losses to date, he estimated, had been about $980,000.

The Fletcher bill must be heard by committees of both the Senate and House (with possible amending) and be passed by both branches of Congress before it becomes a law.

Wholesale Appliances Trade Up 30 % in '35

WASHINGTON, D. C.—An increase of 30% in the wholesale distribution of electrical goods, including electrical appliances, radios, and refrigerators, was a leading factor in bringing wholesale trade activity in 1935 to its highest level since 1931, according to Dr. N. H. Engle, acting director of the Bureau of Foreign & Domestic Commerce.

Sales during 1935 totaled $16,287,000,000, as compared with $14,710,000,000 in 1934. This is the second estimated increase in the wholesale sales since 1933, when the depth of the depression was reached. Total estimated sales by wholesalers proper were $3,290,000,000 greater than 1933, or an increase of about 25%. The volume is still 44% under the peak year, 1929, however.

Other fields to show notable increases during the year, besides electrical goods, were building materials, 29%; plumbing and heating equipment and supplies, 50%; and furniture and house furnishings, 25%.

Kelvinator Follows Up Collier's Color Spread By Having Salesmen Give Prospects Copies

DETROIT—Kelvinator Corp. used an unusual plan to carry its opening advertising message to thousands of "best prospects" the week of March 9.

The plan involved Kelvinator's purchase of 100,000 copies of the March 14 issue of *Collier's* magazine which contained the five-page, four-color advertisement announcing its 1936 models, and the sale of these copies to dealers' salesmen, at five cents each, for personal distribution to their 10 best prospects.

A telegram sent to Kelvinator distributors Feb. 5, bearing the name of S. C. Mitchell, director of advertising and sales promotion, followed by a detailed letter, first outlined the factory's plan to members of its distributing organization.

Dealers' salesmen sent the names of their 10 best prospects into the factory. Between March 2 and 5, each prospect whose name was submitted received a telegram signed by George Mason, Kelvinator's president. The telegram told the prospect of the *Collier's* advertisement, its significance to one purchasing electric refrigeration, and explained that a company representative would deliver a free copy of the magazine.

Each salesman was mailed 10 copies of *Collier's*, a copy of Mr. Mason's message, and the original list of prospect names which he had mailed to the factory.

Completing this special promotional drive, the salesmen contacted their prospects, gave each a copy of the magazine containing the new model advertisement, and launched into a sales story. This direct tie-in of national advertising with sales work led to the completion of many sales, company officials state.

A Cooperative Drive Gets Started

(1) Ralph Winters, Stix-Baer & Fuller; Norman S. Brown, Brown Supply Co.; J. F. Laurie, Scruggs, Vandervoort & Barney; and L. D. James, president of James & Co., G-E distributor, hear (2) C. E. Michel, vice president of Union Electric Light & Power Co., tell St. Louis dealers that "1936 is your electric range year!"

Cooperative Drive Opened in St. Louis On Electric Ranges

(*Concluded from Page 1, Column 3*)

where a full-size billboard carried the campaign message. Enlarged representations of newspaper and direct mail advertisements were shown, together with combination range and refrigerator displays, set up just as they would be in dealer windows.

Interspersed in the presentation were radio spot announcements, exactly as they are planned for use over St. Louis' four radio stations.

As each piece of advertising material was shown, Mr. Holland briefly described its purpose and use.

Dealers and their sales managers were given a copy of the campaign plan book prepared by the utility, for guidance in carrying out their parts of the cooperative plan.

This plan book outlines the entire campaign, and shows samples of newspaper, billboard, and direct mail advertisements which will back up the drive. Opening newspaper ads broke in the St. Louis dailies on March 10.

The direct mail feature of the campaign will follow the newspaper drive, and will be "personalized," with each housewife's name printed on the three folders she receives. Dealers will furnish the names of their "best prospects" to the utility, and the direct mail messages will feature the dealer's own range and carry his signature.

Union Electric is also featuring a special bonus plan for range sales between March 9 and June 30, with payments scheduled as follows for ranges sold and installed on first floors of single-family dwellings:

Dealers, $5 per range; salesmen, $2.50 per range for the first five sold and installed; $5 for the next 20; and $7.50 per range for all sales over 25.

Other special services which the utility is making available to dealers during the drive include a continuation of its free wiring plan on range installations; use of its kitchen for special demonstrations to groups of prospects; instruction of salesmen in electric range operation; demonstration by home economists of the use of the range to new customers; lecturers on electric cookery for dealers' store meetings.

On sales to Union Electric customers, the utility will also arrange to have monthly collections made along with the regular electric bill.

Distributors cooperating in the campaign are:

James & Co. (General Electric), L. D. James, president; Arthur R. Lindburg Co. (Westinghouse), A. R. Lindburg, president; Westinghouse Electric Supply Co. (Westinghouse), W. A. Ward, manager; General Electric Supply Co. (Hotpoint), L. Arnold, manager; Burton Electric Co. (Monarch), William Burton, president; Tieman Stove & Hardware Co. (Standard), Otto H. Tieman, president.

United Electric Co. (Standard), A. Vail, manager; C. A. Danziger Stove Co. (Marion), Curt Danziger, president; Brown Supply Co. (Universal), Fred A. Wiebe, vice president; Graybar Electric Co. (Crawford), George Corrao, manager; Norge Company of Missouri (Norge), A. E. Bottenfield, president; Witte Hardware Co. (Kelvinator), R. C. Houck, manager.

Roger Putnam Co. (L&H), Roger Putnam, president; Sears, Roebuck & Co. (Kenmore), L. R. Tuttle, manager, electrical appliance department; Artophone Corp. (Estate), Herbert Schiele, president.

Union Electric officials actively participating in the campaign, besides Mr. Michel and Mr. Holland, include W. L. Berry, sales manager, and W. P. Mackle, merchandising counselor. Art Schanuel, director of the Electric Refrigeration Bureau, is also director of the Electric Cookery Council.

Westinghouse Holds Kitchen Clinic

(*Concluded from Page 1, Column 1*)

range, or dishwasher has recently been purchased," he said, "there need be nothing sacrificed, for in addition to the standard packaged kitchen, we shall have a standard package for each of those unit centers. In 1936, that is the way the housewife will buy her kitchen."

Reese Mills, manager of Westinghouse's range and water heater department, showed the group how the range is now entering the mass market, and how the all-electric kitchen, of which he is also in charge, has become a major activity.

Those present at the clinic were: Demetria Taylor, *Good Housekeeping* Institute; Grace Pennock, associate editor, *Ladies Home Journal*; Kathleen Robertson and Mary Davis Gillies, associate editors, *McCall's;* Ada Bessie Swann, director, Home Service Center; and J. M. Badger; *Woman's Home Companion.*

Ruth Jacobs, director, Tasting-Testing Kitchen, *Better Homes & Gardens*; Charlotte Eaton, associate editor, and Elsa M. Mangold, dietician, *American Home*; Henry B. Humphrey, Jr., *House & Garden*; Esther E. Kimmel and Lurelle Guild, associate editors, *Pictorial Review*; Gabrielle Griswold, *Country Home*; Helen B. Campbell, director, Chaterlaine Institute; Eloise Davison, director of home economics, *New York Herald-Tribune* Home Institute; R. E. Barnes, manager, National Kitchen Modernizing Bureau.

Milwaukee Dealers Plan Campaign

(*Concluded from Page 1, Column 2*)

1936 is the aim of the six months' refrigeration advertising campaign to be sponsored by the newly-formed Milwaukee Electric Refrigeration Bureau, according to President Greusel. Gustav Marx will handle the campaign which will call for an expenditure of from a minimum of $15,000 to a maximum of $25,000, half of which will be contributed by the Milwaukee Electric Railway & Light Co. During the six months, an ad will be inserted each week in each of the city's daily newspapers.

Every retail and wholesale interest in the city will participate in the activity, Mr. Greusel said. Marshall & Ilsley bank will act as depository for the contributions which are to be made weekly, and will keep the number of units sold by contributing distributors and retailers confidential.

An appeal for sound selling practices was also made by the president as he cautioned against the growing practice of hiring away salesmen from competitors.

Sales Idea of the Week

By V. E. (Sam) Vining

The woods used to be full of salesmen who boasted that they could "sell anything," because they really sold "themselves" and "personality."

Young salesmen were told in all seriousness that the less they knew about the line they were selling—the better off they were.

A salesman was rated according to B.O., S.A., Halitosis, Morning Mouth, and "They laughed when I sat down at the piano."

Personality salesmen—plus.

Most of them are gone now, and the few who are left are hangovers from a more gullible day.

Absolutely nothing takes the place of "knowing your stuff."

Selling isn't a "game." You are not trying to win because an opponent loses. Your prospect is not an opponent; he is a partner in a business transaction; and your contribution to the partnership is a knowledge of the particular gadget you are selling.

Don't misunderstand me. I don't want your mind full of a lot of non-essentials. You don't have to know all the engineering and manufacturing details.

But—you must know its uses and applications—what it will do for your prospect.

And nothing will take the place of this knowledge.

Know your stuff.

The "personality" salesman is going the way of the drummer who attracted attention with loud perfume and held his audience with still louder smelling stories.

Creditors Receive Bids On Grigsby-Grunow

CHICAGO—Creditors of the defunct Grigsby-Grunow Co. met recently before Referee-in-Bankruptcy Wallace Streeter, to receive bids for the property, assets, and effects of the company, and to hear the final report of Receiver Frank M. McKey.

According to the notice sent to creditors, property and assets of the company, including real estate, may be disposed of in entirety, in separate lots or combinations of lots, or at public auction, as court may direct.

Mr. McKey, as trustee for the company, filed a petition Feb. 19 seeking permission to solicit bids for the property and assets of the organization, either whole or in separate lots; and, in the event no satisfactory bids were received, to dispose of them at auction.

Mr. McKey's final report as receiver for the company listed total receipts of $955,620.75, and total expenses of $447,176.39, leaving a balance of $508,444.36.

California Utility Survey Shows Sales Gain

(*Concluded from Page 1, Column 4*)

compiling the summary. For instance, sales listed under Alhambra also include the surrounding smaller towns of San Gabriel, Monterey Park, and El Monte. Sales listed under Pasadena, but not including the city of Pasadena, include the towns of Altadena, Monrovia, Sierra Madre, South Pasadena, Eagle Rock, Tujunga, Sunland, and Montrose. In the same manner, reports listed for the larger centers include as well the smaller areas in that vicinity.

Long Beach led all other sales areas in the year's race, showing 4,645 unit sales to gain a slight edge over Santa Monica, which reported sales of 4,360 units. Vernon and Pasadena areas also ran close together for the year, the former finishing with a record of 3,582 units, and the latter with 3,511. The Inglewood area reported sales of 2,218 units to rank well up among the leaders, numerically.

* * *

Summary of Dealers' Reports to Southern California Edison Co., Ltd., of Sales from Jan. 1 to Dec. 31, 1935

Sales Area	Refrigerators	Ranges	Water Heaters	Average No. of Dealers Reporting	Total No. Dealers In District
Santa Monica	4,360	546	173	35	47
Inglewood	2,218	302	93	24	24
Redondo Beach	457	146	67	15	16
Ventura	456	125	102	8	11
Oxnard	160	62	49	5	5
Santa Paula	222	75	54	7	8
Santa Barbara	765	166	93	15	17
Lancaster	233	100	56	6	7
Santa Ana	1,122	161	99	12	16
Huntington Beach	136	68	35	3	4
Fullerton	611	112	57	9	11
Long Beach	4,645	119	50	62	66
Pomona	765	173	77	18	18
Ontario	482	122	52	13	13
Covina	224	54	25	11	11
San Bernardino	1,684	295	147	18	20
Redlands	807	291	140	16	19
Vernon	3,582	247	76	43	43
Compton	1,173	65	33	21	21
Montebello	1,610	177	73	9	12
Whittier	1,277	213	85	13	15
Pasadena	3,511	260	84	42	51
North Hollywood	647	101	27	10	15
Alhambra	1,457	209	71	26	31
Monrovia	258	92	24	13	13
Visalia	783	489	321	13	14
Delano	181	105	83	2	3
Hanford	459	100	77	7	8
Lindsay	198	105	91	6	6
Porterville	439	335	375	9	10
Tulare	601	230	184	11	12
Total	**35,523**	**5,645**	**2,973**	**502**	**567**
Totals for 1934	18,060	2,690	620	528	578

INCREASE YOUR SALES - *NOW!*

Manufacturers of income producing machinery and equipment have a great sales-getting weapon at their finger tips. That instrument is instalment selling—the Federal Housing Administration plan for financing the modernization program of plant and factory.

If your equipment is income producing, if it is capable of paying for itself from the savings it will effect, why wait longer to materially increase your sales through the tried and proven method of instalment selling.

Industry needs modern machinery and equipment. It needs your equipment. But Industry fears to deplete working capital and reserves in order to buy it. Offer Industry a sound instalment payment plan and a quick upward swing in the sales curve will be your reward.

Commercial Credit Company has safely financed billions of dollars worth of appliances and equipment. Let us show you how you can increase your sales during 1936 with a constructive plan of instalment selling. The coupon below is for your convenience. There is no obligation.

COMMERCIAL CREDIT COMPANY

COMMERCIAL BANKERS

HEADQUARTERS . . . . BALTIMORE

COMMERCIAL CREDIT COMPANY - Baltimore

Without cost or obligation to me, please advise me how your time-payment financing plans can help me increase my sales.

Company name_____ By_____

Street address_____ City and State_____

U. S. REFRIGERATION GAUGES

Standard of the Trade

All types of Gauges for refrigeration service and original equipment.

Always

ACCURATE . .

RUGGED . .

DEPENDABLE

U. S. GAUGE CO.

44 BEAVER STREET NEW YORK

Monday Morning . . MARCH 30th!

Over a Coast-to-Coast Chain of Stations

WSB	Atlanta, Ga.	WTIC	Hartford, Conn.	WCAE	Pittsburgh, Pa.
WFBR	Baltimore, Md.	KTHS	Hot Springs, Ark.	WCSH	Portland, Me.
KGHL	Billings, Mont.	KPRC	Houston, Texas	KGW	Portland, Ore.
WAPI	Birmingham, Ala.	WJDX	Jackson, Miss.	WJAR	Providence, R. I.
KFYR	Bismark, N. D.	WJAX	Jacksonville, Fla.	WPTF	Raleigh, N. C.
WEEI	Boston, Mass.	WDAF	Kansas City, Mo.	WRVA	Richmond, Va.
WBEN	Buffalo, N. Y.	KFI	Los Angeles, Cal.	KDYL	Salt Lake City, Utah
KGIR	Butte, Mont.	WAVE	Louisville, Ky.	WOAI	San Antonio, Texas
WSOC	Charlotte, N. C.	WIBA	Madison, Wis.	KPO	San Francisco, Calif.
WFLA	Clearwater, Fla.	WMC	Memphis, Tenn.	WGY	Schenectady, N. Y.
WTAM	Cleveland, Ohio	WIOD	Miami, Fla.	KOMO	Seattle, Wash.
WIS	Columbia, S. C.	WTMJ	Milwaukee, Wis.	KTBS	Shreveport, La.
WFAA	Dallas, Texas	WSM	Nashville, Tenn.	KHQ	Spokane, Wash.
KOA	Denver, Colo.	WSMB	New Orleans, La.	KSD	St. Louis, Mo.
WWJ	Detroit, Mich.	WEAF	New York, N. Y.	KSTP	St. Paul, Minn.
WEBC	Duluth, Minn.	WKY	Oklahoma City, Okla.	WDAE	Tampa, Fla.
WDAY	Fargo, N. D.	WOW	Omaha, Neb.	KVOO	Tulsa, Okla.
WBAP	Ft. Worth, Tex.	KYW	Philadelphia, Pa.	WRC	Washington, D. C.
WOOD	Grand Rapids, Mich.	KTAR	Phoenix, Ariz.	WTAG	Worcester, Mass.

In addition to the stations listed above, stations W2XAF and W2XAD in Schenectady will rebroadcast the program by short wave to all parts of the world.

General Electric Home Appliances "Hour of Ours"—nation-wide radio broadcast to G-E dealers, salesmen and the general public

Hear the important message of Gerard Swope, President of the General Electric Company—listen to Dr. Coolidge, famous scientist of the G-E "House of Magic"—thrill to the music of the General Electric 40-piece orchestra; the "Revelers," celebrated male quartet; the "Six Singing Violins;" Richard Bonelli, Metropolitan Opera baritone, and other noted artists. Remember the date: *Monday morning, March 30th.* Be sure to listen!

11 to 12 noon, Eastern Time **9 to 10 A. M. Mountain Time**
10 to 11 A. M. Central Time **8 to 9 A. M. Pacific Time**

GENERAL ELECTRIC

Around the World

With George F. Taubeneck

IN THIS ISSUE, George F. Taubeneck, editor of the NEWS, tells about his trip from San Francisco to Honolulu and reports interviews with prominent refrigeration men of San Francisco who honored him with a luncheon party the day before he sailed on his trip around the world.

In last week's issue he had a vivid word-picture of his impressions of San Francisco as a city—one of many such descriptions he has written for the NEWS. Next week he will tell about his experiences in Hawaii.

Mr. Taubeneck is now in the neighborhood of Darwin, North Australia. Next week, he is scheduled to make brief visits in Soerabaya, Semarang, and Batavia, Java. On March 28 he will arrive in Singapore, Straits Settlements.

Mystery Man

Not until rather late last night did your correspondent come out from behind those dark glasses and reveal himself to the passengers on the *S.S. Malolo* as just another mugg. Until that time he had 'em fooled.

To initiate the feeling of curiosity on the part of our shipmates, we were paged all over the place before the boat sailed, and finally located down in the bowels of the ship with a fine-feathered delegation of San Francisco refrigerationeers.

After being spotted we were whisked up to the top deck, photographed by newspaper cameramen, and interviewed ("SANDY" PRATT had convinced 'em we were somebody).

When we were brought up to the photographers with a here-is-Mister-Taubeneck salutation, a distinguished-looking man stepped up and said:

"Oh, so *you're* George Taubeneck. Why, I've been reading your stuff for years and always wanted to know what you looked like. My name is PAUL STURMER, and I'm the Studebaker distributor in the Islands."

That helped heighten the impression that here was a Big Shot. And then came the mail—packages, big manilla envelopes, 17 special delivery letters to sign for, long business envelopes, pen-and-inked personal stationery, long tubes—and it came in relays.

Every half hour or so for the first part of the evening boys would bring up more mail that the purser had just discovered. It really must have looked like an act.

It turned out that Mr. COCKRELL, with his customary care and caution, had sent me *duplicates* of everything (except checks!) to both the Matson Line offices in San Francisco and to the boat.

There were copies of the last three issues of the NEWS, letters from foreign subscribers, carbon copies of letters on all sorts of subjects so that I could keep up with current thinking and plans back home, and some bon voyage letters and telegrams.

By the time I had been paged for the last telegram, the gaping fellow passengers were really agog.

And then at dinner, when we came up to the assignment table, it was:

"Oh, yes, Mr. Taubeneck, the chief engineer has spoken about you. Would you like to sit at the Purser's table?"

Now the Purser is a fellow who really *has* a table. He gets to look over the entire passenger list when they come aboard, and pick out the lookers—whom he seats at his table. The captain gets the diabetic trade.

There are a couple of pretty neat numbers at the table, and now we wish we hadn't got behind with our writing in Hollywood.

* * *

The Chief Engineer

Deciding it would be well to hunt up the chief engineer and thank him for his interest, we wound our way through a very devious series of turns, steps, and doors to his really luxurious quarters.

His name is KENNETH MILLER, and he's a swell gent. How come he knew my name? No, he didn't read the paper, but J. G. GILFILLAN had told him I was to be on board, and to look out for me.

On a table was a brand new Gilfillan battery set radio receiver, and Mr. Miller declared he was getting stations from all around the Pacific on it.

After a little chat we toured the mechanical plant, traipsing up and down skimpy steel ladders all through the bowels of the ship. You have no idea how much equipment it takes to run a ship until you see it.

There seems to be two of everything—for safety's sake. And it reminds you very much of the inside of a steam power central station generating plant, except that it's not as neat or roomy (everything must be compressed into small space). The boilers are heated by oil burners, which employ an atomized oil flame.

Refrigeration equipment consists of four horizontal 3½-ton compound compressors, using CO_2 as a refrigerant, steam-driven of course, manufactured by an English firm, J. E. Hall, Ltd. Mr. Miller says they encounter some difficulties on parts replacements for these machines.

These machines refrigerate big walk-in coolers (whose cubage I was unable to obtain), in which the ship's perishable food supplies (which are a considerable quantity of provisions, you may be assured) are stored. It might be noted that the milk was sour for a couple of the earlier meals.

Going up to Capt. FRANK JOHNSON's bridge we "shot the sun," which was fun, saw the ship's position charted, looked over maps and recording instruments and graphs and controls, and observed the mechanical steering device.

This latter is built around a gyroscope, which is a flywheel spinning so fast that it always keeps a true axis.

Whenever the ship gets off the course which has been set for it, the gyroscope is out of position, and some electrical contacts are broken, and others opened—bringing a system of gadgets into play which right the rudder until it is back into its correct relation with the gyroscope.

There is an auxiliary wheel of the old-fashioned variety—with spokes coming through the rim to serve as handles—which is occasionally brought into play, as, for example, when we passed a sister ship, the *S.S. Lurline* last night.

(That, by the way was a lovely sight. Both ships turned on all the lights they had, so that they resembled Reno night clubs, and passed within a few hundred yards of each other, with deep-throated whistles bellowing and passengers shouting.)

* * *

Among the Passengers

Passenger list on this sailing is pretty much a young crowd. There are the usual forlorn and listless honeymooners (three pairs), two Fanchon & Marco show units, a number of well-to-do young people traveling to the Islands for a winter vacation, and some older men with quite young ideas.

One of these is GEORGE BAKER, who sells Alexander Hamilton Institute courses, and who had met one-third the passenger list before the first night was over (he showed me the list, with the names of those he'd met checked off).

He is bald, ruddy, sixtiesh, has a way with the women like C. F. BAKER, Atlanta refrigeration engineer, and is easily the most popular man on the ship.

No, that isn't exactly true. Perhaps the best-liked man is my friend, TOMMY EMMETT, from Detroit, who is advance man for the Detroit Lions, world's professional football champions. (The entire team is coming over to the Islands a week later on the *S.S. Lurline*, and will play the Honolulu team the fifteenth. Tommy is a natural comic, and has evening impromptu gatherings in stitches for hours at a time.

One interesting passenger is a young attorney from Auckland, New Zealand, by the name of COLIN McNAUGHT, who is going home after four months spent touring the United States. Some of his reactions:

Greatest marvel in America was the Ford plant, the Ford organization, and HENRY FORD. How any one man could create and direct so mighty an industrial empire was beyond his ken.

He also was impressed by the Anheuser-Busch brewery in St. Louis, the Inland Steel Co. mill in East Chicago, the Mills Novelty Co. in Chicago, and the Swift & Co. packing establishment in Chicago.

Niagara Falls was a big disappointment, but he was awestruck by the Grand Canyon and Yosemite Valley (sorry I missed that, Mr. Courtright).

Chicago was his favorite city, although he had the most fun in New York. Los Angeles, he claims, is the biggest hick town in the world, with Detroit a close runner-up.

He thinks Roosevelt is screwy, American cooks rank amateurs, American entertainment unbelievably good, American people the most alive race on earth, our modern architecture most promising, our older architecture eyesoreic.

Another interesting chap aboard is TOM TYRER, who was for seven years a Paramount newsreel cameraman. His adventures in remote corners of the world (he was Explorer SVEN HEDIN's cameraman, was in the 1932 Chinese war, and was present at the scenes of various disasters) make hair-raising listening.

One of the best scouts on board is JACK FROST, a singer and theater master of ceremonies who, unlike many of his tribe, is as common as the proverbial old shoe. His voice ranges three octaves and over, and he'll sing anything at any time for anybody. He won most of the deck sports contests.

Together with Tommy, cameraman Tyrer, a well-read and philosophical bartender named Frank (an authority on T. E. LAWRENCE), and Purser TED HAYES, an erudite and widely traveled sophisticate, we've had some grand after-dinner sessions.

Most of the passengers amuse themselves with the customary deck sports and card games. There's a good movie, followed by dancing and stuff, nightly. All the best NBC and CBS radio programs come in well on a Philco.

* * *

Stowaways

There were three stowaways on board, two boys and a girl. The boys, when discovered, were immediately locked up in the brig. They get one meal in five days.

On their arrival they will be thrown into jail in Honolulu, where they may contemplate their misdemeanor for six months or a year.

Stowawaying is now a federal offense. Occasionally the *Malolo* and *Lurline* exchange stowaways, via rowboat, when they pass in mid-ocean, in which case the apprehended oceanic hitch-hikers go right back to where they started from—but this time to jail.

The *Malolo's* girl stowaway was something of a mystery. She absolutely refused to talk to ship's officers. After a time, however, we discovered her name was MARION TROSPER, that she was a Stanford University co-ed, that she didn't like it there, and that she came from Oklahoma City.

Her father, JAMES TROSPER of that city, was located via radiogram, and immediately radioed $300 for her *first-class* round trip passage. He stipulated, however, that she not be allowed to leave the boat at San Francisco until he arrived.

* * *

Bobbie & Betty

But by far the tops among all the passengers are a two-years-old Bobbie and a three-years-old Betty (no relation to eath other) both blue-eyed and blonde and rosy, both consistently good-humored and gurgling, both so expressive facially that one constantly hears, "they ought to be in the movies." At mealtimes they put on a regular circus.

There are some other appealing youngsters on board, too, and they're all friends of ours. Because we're always sitting in the same chair, typing, and hence stay put, their mothers have made us an official parking place for their infants while they play horses or shuffleboard.

We're just a born father, if some lucky girl could only guess it.

After the above paean to the Age of Innocence was written, we strolled inside to the bar for a package of cigarettes.

When we came back, an invaluable selenium cell exposure meter (a real help in judging light for outdoor photography) was missing.

You guessed it. One of those dear little friends of mine had tossed it overboard during my short absence.

Never did find out which of the angels had perpetrated the deed; nor, so thoroughly had I played the role of Uncle George the Children's Friend, could I step out of character to demand an investigation.

Note to PBR: Please report this mishap to Miss Davis of the Bennett Insurance Agency. I believe I'm covered on this loss. I'll have to get a new exposure meter right away, because the light qualities will be all strange to me from now on.

* * *

Sales Talk

Chief Engineer Miller and Passenger McNaught have both been giving us strong selling talks with a view toward getting us to return our ticket on the *S.S. Aorangi* in on one for the *S.S. Mariposa* for the voyage from Hawaii to Australia.

To begin with, the *Mariposa* is an air-conditioned ship. Passenger McNaught says you have no idea what that means in tropical sailing until you've tried a ship like the *Aorangi*, which isn't. Engineer Miller says the installation should provide good copy for the paper, and should interest me personally.

In the second place, the *Mariposa* is a newer and bigger and better boat. Thirdly, it stops in Samoa (Pago Pago), which the *Aorangi* doesn't.

Again, it stays longer in Auckland (when McNaught saw the list of firms I hoped to call on in Auckland, he observed that I couldn't make a third of the calls even if I went on the *Mariposa*, and that if I took the *Aorangi* I'd barely get started.)

The *Mariposa* has a later sailing date (February 10), but is faster (arrives February 24). It costs more. We'll see.

The manufacturer who standardizes on Delco is assured of an adequate supply of motors at all times. And if he makes any alterations in his product which require corresponding changes in his electric motors, he knows that these changes can be quickly and easily effected. For Delco production is so flexible that it can be keyed to the individual needs of any manufacturer — just as Delco *motors* are designed and constructed to suit the particular requirements of the various appliances for which they are made. Overshadowing all this, however, is the ruggedness and reliability of Delco motors themselves—a natural result of Delco's long engineering experience and wide production facilities—and one which is equally appreciated by dealers and manufacturers alike.

DELCO PRODUCTS CORP.
DAYTON, OHIO

Made in Canada by McKinnon Industries, Ltd., St. Catharines, Ont.

Birmingham Dealers Set 7,000 as Quota

BIRMINGHAM, Ala. — With 1935 sales showing a 400 per cent increase over sales made during any previous year, the Birmingham Electric Refrigeration Bureau has already launched its spring selling campaign in an effort to crack the 7,000 unit quota established for 1936.

Approximately 8,000 units, representing a dollar volume of $1,188,000, were sold by bureau members during 1935.

Opening wedge in the spring drive is a cooperative newspaper advertising campaign sponsored by the Birmingham Electric Co., and the dealers operating under this utility.

Under this joint advertising project, the power company runs a 60-inch advertisement each week, stressing low rates. This spread is surrounded by 12-inch dealer display advertisements, featuring the merchandise and price. The utility plans to spend approximately $12,000 in this campaign.

Following its policy of last year, the Birmingham Electric Co. will leave the sale of refrigerators (except liftops) entirely up to the dealers. The 45 field salesmen employed by the utility will continue to handle smaller electrical appliances, but they will submit all refrigeration leads to the utility office, where they will be distributed among the dealers.

The power company will also aid its dealers by making available the services of two home economists to assist the dealers in holding cooking schools or other group demonstrations.

Impetus is given to the 1936 sales campaign by the fact that the Birmingham market is still only approximately 35 per cent saturated—and 33,000 homes are still without electric refrigeration.

Hamlin Gets G-E Award For 'Talking Kitchen'

CLEVELAND—Among 43 employees of the General Electric Co. to win the Charles A. Coffin Foundation Award is C. I. Hamlin of the company's appliance and merchandise department for his "General Electric Talking Kitchen."

The Coffin citations, each consisting of a certificate and cash award, are for contributions to the progress and prestige of the company, and to the advancement of electrical art.

Outstanding among the spectacular display material which won Mr. Hamlin the prize, the talking kitchen has an electric refrigerator, range, and dishwasher, each of which "talk" about its features by means of records.

Records are synchronized to the appliance and as the refrigerator, for example, "talks" about its door, the door opens. When the range talks about its oven, the oven opens as well.

Distributor and dealer showrooms, department stores, fairs, exhibits, conventions, and cooking schools have used this unique device.

Dealers Get Prize for Saving Promotion

TOLEDO—The Electric Range & Equipment Co., Leonard distributor here, worked out a novel plan for securing dealer attention to the direct mail promotional literature sent out preceeding the new line showing.

The company's promotional department prepared a series of 12 bulletins, each of which played up one feature of the 1936 Leonard refrigerators or of the 1936 Leonard sales program. The dealer was informed that if he saved the 12 bulletins, filed them in the cardboard binder mailed with the first of the series, and brought them into the distributor's refrigerator showing, he would receive a gift.

Feature of the plan was that if the dealer could not attend the distributor's showing, he could obtain the gift by mailing the folder in to the distributor. Each bulletin after the first carried a note informing the dealer he could still obtain a complete set of bulletins by writing in.

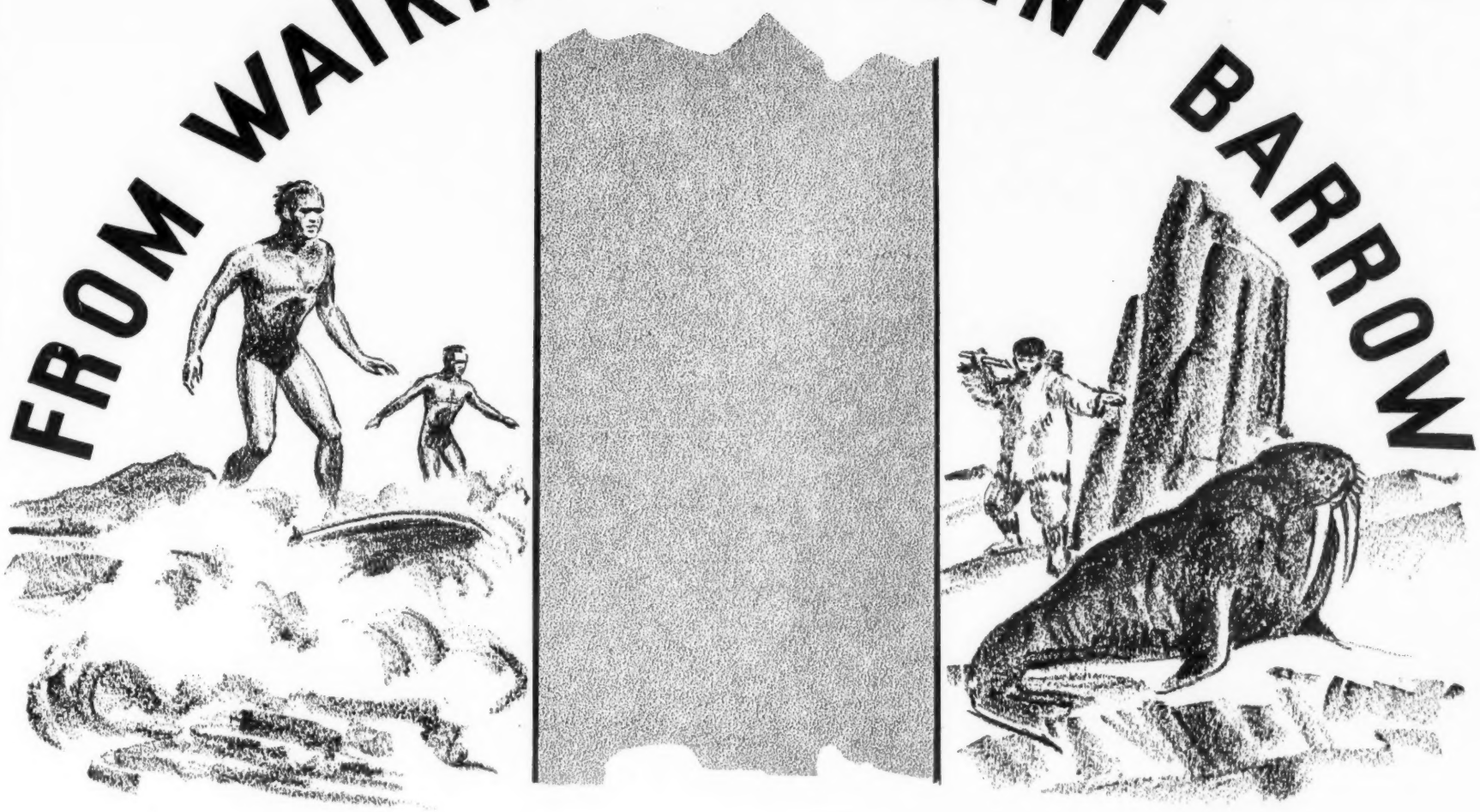
Scurlock Sells Kits on Instalment Plan

CHICAGO—Refrigerator accessories packed in kits ready to be sold on the instalment plan with the refrigerator are now being marketed by Scurlock Kontanerette Corp.

The assembled kit, packed in one carton for shipment or delivery, consists of a Kontanerette, Beveragette or cocktail shaker, ice tub, glass rolling pin, and vegetable crisper.

Purchased on the instalment plan with the refrigerator, the higher priced kits at $6.95 cost only a few cents a month, the makers explain.

One group of 200 department stores merchandising the Excel refrigerator and a group of 200 furniture stores merchandising R-C refrigerators equip each refrigerator they sell with a kit.



IS ONLY ⟷ THIS FAR

in a refrigerator

A few thousand miles on the map becomes only the width of three chubby fingers in a refrigerator. For on opposite sides of a thin wall is represented the temperature of the tropics and of the polar cap.

Of vital importance is this often unconsidered barrier that must frequently guard a difference of 60 degrees between inside and outside temperature.

Plain it is that what material lies within the thin metal shell may make or break a refrigerator's efficiency. Any good refrigerator unit will pull down the inside temperature to a safe protecting range. But the cost of doing so is dependent entirely on the heat stopping value of the insulant within the walls.

Many materials when dry will effectively stop this flow of tropical heat from the outside to the frigid zone within. So that almost any refrigerator when new ***seems*** to operate satisfactorily and economically.

Enter the villain

But alas! All is not sweetness and light. Moisture gets in. And no so-called "moisture-seals" can stop it. What seemed to be a dependable refrigerator may turn into an electrical spendthrift. For it is now conclusively proved that water vapor in the form of a gas easily penetrates the steel refrigerator shell and condenses inside the walls, out of sight. This is due to the temperature difference between the room and the food compartment. This moisture, soaking into most materials, more and more completely destroys their insulating efficiency. Only "non-hygroscopic"—that is, non-absorbent—insulation is unaffected by this phenomenon of physics.

Cuts operating cost

And that is why Dry-Zero in any refrigerator saves from 30c to $2 a month in operating costs. Dry-Zero is non-hygroscopic. It is unaffected by moisture. It enables the unit to keep proper inside temperatures economically. And for the entire life of the refrigerator.

The famous Dry-Zero Laboratory has made many exacting tests on this feature of refrigerators. A brief resumé of results will be sent you if you will write for a copy. Just ask for "Results of Moisture Tests." No obligation.

DRY·ZERO
REG. U.S. PAT. OFF.
THE MOST EFFICIENT
COMMERCIAL INSULANT KNOWN

Dry·Zero Corporation • 222 North Bank Drive CHICAGO, ILLINOIS • 687 Broadview Ave. TORONTO, ONTARIO

Around the World

With George F. Taubeneck

Other San Francisco Distributors Describe Sales Practices

Association Has Kept Dealers in Line

As was said previously, the high plane of household refrigeration operations in San Francisco is due in no small measure to the work of the Domestic Wholesale Refrigeration Association of Northern California, of which ELLIOTT M. EPSTEEN is secretary and R. W. KIMBERLIN, merchandise manager of Graybar Electric Co., Leonard distributor, president.

Under the association's guidance, coin meters have been kept out of circulation in the territory, free deals, dumping, and price cutting have been reduced to a minimum, and dealers generally have been "sold" on one line of refrigerators—so thoroughly that very few of them handle more than that one make.

In a sales territory where the cool, even-tempered climate makes sales going tough practically all the time, and where the refrigeration saturation is only about 24%, keeping dealers in line is no easy task—and the association deserves a lot of credit for its work.

But even if San Francisco distributors and dealers were tearing each other apart, competitively speaking, there's one ground on which they'd all find agreement—and that's FHA selling.

Because of the widespread use of the branch banking system in northern California, the FHA plan is used up here twice as much as in any other part of the United States. Where distributors in other sections of the country have to sell banks in several cities on the idea, up here it's all accomplished in one selling job.

Instead of selling individual bankers, it's only necessary to sell *one* big banking institution, like American Trust Co., Bank of America, or Security First National Bank of Los Angeles, and immediately hundreds of branches fall in line automatically.

These banks have issued instructions to their branches to "bend over backwards" in granting FHA credit.

"Buy before it (FHA) ends March 31," is the selling theme out here. There is a possibility that the banks may carry on with a financing plan of their own, should FHA be discontinued—but, if they do, it will be without recourse, with all repossessions returning to the dealer.

We talked to several distributors during our brief stay in San Francisco, and without exception, they expressed their warm approval of FHA financing, said they were urging their dealers to use it wherever possible, and hoped that either FHA or a plan similar to it would be continued after March 31.

* * *

G-E Distributorship Operates Retail Dept.

Most of the distributorships are strictly wholesale operations, only one of the several we saw, Electric Appliances, Inc., having a retail department. Under the direction of C. W. HARTENFELS, Electric Appliances, G-E distributor, operates four retail stores in San Francisco, Oakland, and Sacramento, employing about 60 retail salesmen.

Electric Appliances has about 175 dealers in its territory, 125 of which are exclusive with General Electric. These dealerships are divided among specialty appliance stores, electrical dealers and contractors, furniture, department, and hardware stores.

Training of dealers and salesmen is done under G-E's standard sales training course, including the LaSalle extension study work. Intensive training is given prospective salesmen during a special four-day period. In addition, morning meetings are a regular feature for salesmen directly associated with Electric Appliance's retail stores, as are cooking schools.

This program, with necessary modifications, is also carried out for dealers' salesmen throughout the territory.

In securing salesmen, Mr. Hartenfels says, newspaper advertisements have been found valuable, but one of the most successful methods has been to recruit a likely prospect from among G-E users. Retail salesmen are encouraged to be on the lookout for potential sales material among their users, friends, and business acquaintances. In this way, a lot of the grief associated with untried salesmen is done away with.

Best promotion stunt by the company last year was its participation in "Zim's Red Letter Day," the nationwide G-E one-day sales drive. On Nov. 1, in this special drive, Electric Appliances sold $48,000 in merchandise, in a period in which sales normally are low.

Repossessions last year were low, Mr. Hartenfels said—only about 1.9%. Disposal of returned refrigerators was no problem, either.

"There's always more demand for used General Electric refrigerators than we can fill," he says.

While unwilling to say much about his own sales mark for 1936, Mr. Hartenfels did get right down to cases when he discussed dealer sales potentials. A good dealer, he said, will sell between 75 and 300 units a year—the average direct dealership running around 40 unit sales a year. About 80% of his 175 dealers are, he says, in the 20 to 50 per year class.

Mr. Hartenfels thinks it would be a good idea if G-E would add a few more low-cost gadgets, with sales appeal, to its present models. Dealer discounts should be increased, too, in his opinion.

"Price competition, while better this year than before, has caused a terrific battle for sales volume at the expense of high cost dealer and distributor profit," he says. "Low cost, high volume distributors and dealers have made money out here, and they'll continue to do so."

* * *

G-E Men in the San Francisco Distributorship

Four key executives of Electric Appliances, Inc., General Electric distributor in San Francisco, and a fifth from the home office in Cleveland, snapped by George Taubeneck's candid camera during his visit to the Coast city. Left to right: D. J. Davy, secretary-treasurer of Home Appliances; G. A. Lloyd, general sales manager; R. Grosjean, advertising and sales promotion manager; H. C. "Earthquake" Falkell, commercial manager; and Malcolm T. Bard of Cleveland, manager of G-E kitchen waste unit sales, who was in California on a business trip.

Pratt Tells What He'd Do If He Sold Refrigerators

Although he doesn't sell any complete refrigerators—new ones, that is—CLARENCE F. "SANDY" PRATT, president of California Refrigerator Co., has been dealing with those who do long enough to have some very definite opinions on what might be done to make things better.

Mr. Pratt thinks manufacturers could do with less pioneering—there's been too much of it in the past, he says—and settle down to adding "selling features" to the units they now make. According to Mr. Pratt, electric refrigeration today is basically sound, and the manufacturers' next big job is to make their units easier for distributors and dealers to sell.

These "selling features" would include accessories, sliding shelves, and things of that sort. In their "pioneering" efforts of the past, manufacturers have been unfair with dealers by setting up service requirements, cost of which reverted to the dealer, on units which were not, in Mr. Pratt's words, "fool-proof."

California Refrigerator Co. does a whale of a parts and supplies business in these parts—and, as we said before, "Sandy" is the accepted appraiser of most of the trade-in jobs done around San Francisco. The company does business with about 1,000 dealers, only a few of which are devoted exclusively to refrigerator service work. Most of them are appliance stores, furniture stores, or hardware stores.

Mr. Pratt expects the parts business to double in 1936. "Refrigerators are getting older every year," is the way he puts it.

The company has four traveling salesmen working in its territory, and its own crew of service men, who get a course in practical training by starting out in the shipping department and working up from there. Efforts of the four salesmen are backed up by circular letters to customers, and an unusual house organ, "Cold Facts," which Mr. Pratt himself publishes and edits.

Parts manufacturers which the company represents include Fedders, Kerotest, Brunner, and Inland Mfg. Co., makers of Flexotrays.

"All our employees read the NEWS," Mr. Pratt says, "and we also sell many single copies—some of our customers buy three or four at one time. We also sell a good many subscriptions. If the subscriber has an open account with us, we charge the subscription, and bill him for it.

"We think—and so do our customers—that the NEWS is improving with every issue."

(Concluded on Page 7, Column 1)

* * *

Graybar Sets Leonard Quota at 2,500 Units

R. W. KIMBERLIN, merchandise manager of Graybar Electric Co., Leonard distributor, has set for himself the quota of 2,500 sales this year. The distributorship has no retail department, operating through 100 dealers, 10 of them exclusive, and divided between appliance dealers and furniture stores.

Wholesale salesmen, trained by the distributorship, do most of the dealer sales training in connection with their regular work in the field. His average dealer, Mr. Kimberlin finds, will sell around 20 units a year—a top notch one will be right around the 100-unit mark in that time.

Leonard dealers, especially in the smaller towns, have been doing a good promotion job, with nice sales results, from contests to find the oldest article in their respective communities. A prize is offered, and considerable interest aroused, during the course of the contest. More prospects, and higher interest, has been created by this promotion than by any other method tried last year, Mr. Kimberlin reports.

The only objection Mr. Kimberlin finds to manufacturer-distributor relations at present is that dealer and distributor profit margins are not long enough. Also, he says, what margins that do exist are pared down considerably by excessive service restrictions, cost of which the distributor shoulders.

* * *

Robertson Sticks by The Cold Canvass

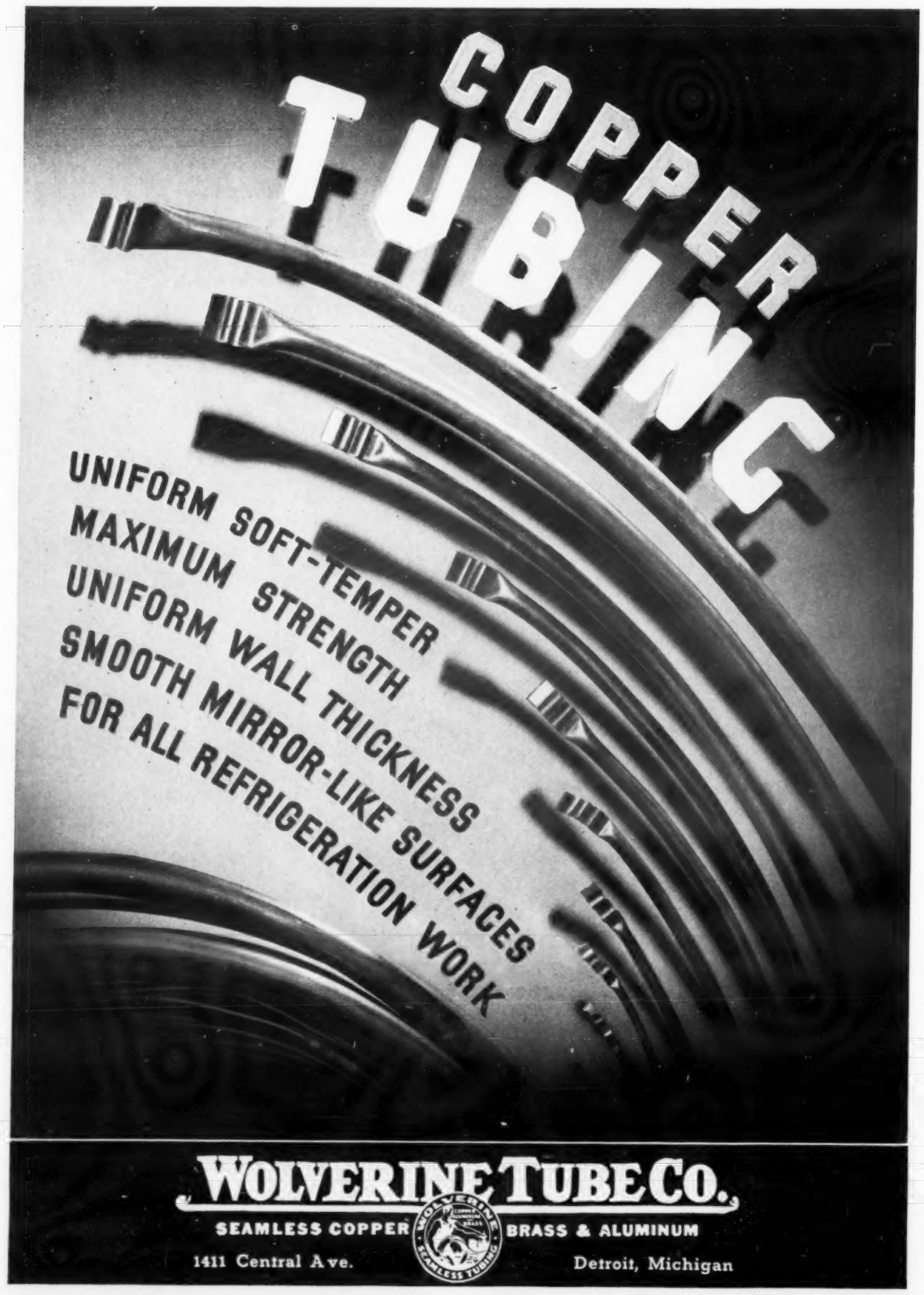
R. E. ROBERTSON, district manager for Frigidaire Corp. in the Bay area, still sticks to the cold canvass as the very best method of getting the prospects which, he says, will enable the dealers in his territory to sell approximately 11,000 units this year.

Noticing ice cards in windows and calling on users he rates as good alternatives to the cold canvass. Frigidaire's "friendship" plan, too, has been successful, he says.

Training of salesmen for Frigidaire dealerships in the Bay area is under the direction of a full-time educational man, who holds sales schools of a week's duration throughout the territory. District representatives, also,

Selling the All-Electric Kitchen

At Electric Appliances, Inc., General Electric distributor for northern California. (1) Salesman demonstrates a dishwasher's place in the kitchen of today. (2) A range demonstration, in another part of the showroom.



"We Favor Exclusive Dealers and FHA Financing" Say San Francisco Distributors

Information from these distributors helped Editor George Taubeneck get a clear insight into the San Francisco electric refrigeration picture. (1) R. W. Kimberlin of Graybar Electric Co., Leonard distributor, and president of the Domestic Refrigeration Wholesalers Association of Northern California. (2) R. E. Robertson, Frigidaire district manager for Northern California. (3) E. M. Frellson, of General Electric Supply Corp., Hotpoint distributor. (4) J. L. Conover, Kelvinator district manager in California and Arizona. (5) C. W. Hartenfels, president of Electric Appliances, Inc., General Electric distributor. Opinions of these men, as told to the editor, are reported on this and the preceding page.

(*Concluded from Page 6, Column 5*)

hold one and two-day sales schools periodically.

Best Frigidaire promotion last year, in the Bay area, was the General Motors show, Mr. Robertson thinks. In other points of his territory, dinner meetings also served excellently as promotional moves; and direct mail campaigns more than proved their worth.

Under Mr. Robertson's direction are about 185 dealerships, about 95% of which, he says, are exclusive for Frigidaire. Furniture dealers are most numerous in the non-appliance store class—there are about 40 of them; department stores, of which there are 15, are also an important factor in sales.

In the metropolitan centers, a good dealer will sell from 150 to 1,100 units a year, Mr. Robertson said. Coming on down the line: in towns of 20,000 to 25,000, 300 units is a good yearly total; in towns of 10,000 to 15,000, 200 units. Even in the smaller towns, Mr. Robertson says, Frigidaire dealers have fared well.

"We had no dealer, even in towns of 500 or less, who sold less than 10 units last year," he says. And that's a record of which nobody need be ashamed.

"Price" competition has been a thorn in the side of the great majority of independent dealers, Mr. Robertson says. He thinks something should be done to bring these competitors, mail-order houses for the most part, into line.

* * *

FHA Financing Helped G-E Supply Corp. Sales

FHA financing was the most successful promotion scheme, from the standpoint of results, that Hotpoint dealers tried all last year, take it from E. M. "SI" FRELLSON, San Francisco district sales manager for General Electric Supply Corp. Refrigerators, ranges, and water heaters were the main sales items, although the organization also distributes radios, home laundry equipment, and vacuum cleaners.

"Our dealers tried and promoted FHA selling aggressively," said Mr. Frellson, "using as a feature the '10 cents a day or $3 a month buys this refrigerator' theme. Our early start on this promotion gave us a fine opportunity, on which we urged our dealers to capitalize.

"One large dealer sold approximately 65% of his refrigerators on the FHA plan." Repossessions from these sales have been negligible, Mr. Frellson says.

He has about 100 dealers in his territory, 10% of whom are exclusive with Hotpoint. Distribution of dealerships is divided almost equally between specialty, hardware, and furniture stores. Majority of the dealerships, says Mr. Frellson, average about 10 units per year, located as they are in rural trading centers. One dealer, however, last year sold more than 100 units.

Hotpoint sales in his territory this year, thinks Mr. Frellson, will run around 3,000 units. The distributorship conducts a strictly wholesale business, and dealers' salesmen are trained principally through factory plans, including model demonstrations and sales movies, and talks by distributor's men to members of the dealer organization.

Newspaper advertising and the cold canvass have been the best methods for getting prospects; radio campaigns have also paid out in results, particularly in the smaller areas. If dealers will see that their salesmen do a good job of canvassing in their territory, the number of live prospects uncovered will be more than sufficient to keep them all busy, Mr. Frellson believes.

The tendency toward lower unit retail prices, with consequent shortened margins for dealers, plus the increased cost of sales promotion and selling, hasn't helped dealers to pile up much in the old savings account, Mr. Frellson says. He'd like to see things rearranged, generally, to give the dealer a better "break" for his efforts.

* * *

Egleston Says Specialty Shops Are Best Dealers

Another strong FHA booster is G. P. EGLESTON, manager of H. B. Basford Co., Kelvinator distributor. "Every effort should be made to have FHA continued," he says.

Cooperating with Bank of America and American Trust Co., the Basford Co. has done a large percentage of its 1935 business through FHA. Repossessions haven't been a bothersome item, either. Right now, the company is staging quite a sales drive, on the possibility that FHA will not be continued, calling it the "Farewell, FHA!" campaign.

There are approximately 110 dealers in the Basford distributorship, a quarter of whom are exclusive with Kelvinator, split up among specialty shops, furniture stores, and department stores.

Specialty shops are by far the best dealers, Mr. Egleston finds. His average in dealerships of this kind last year, he estimates, was from 100 to 200 units. Furniture stores were next best, with sales averaging from 50 to 75 units during the year; and department stores were slightly behind that, with averages ranging from 40 to 65 units yearly.

Mr. Egleston would be happier if there were less factory supervision and expense in distributors' territories, and if distributor and dealer profit margins were lengthened somewhat. He thinks forced draft circulation and lower prices would prove sales stimulants in modern mechanical refrigerators.

Sales this year, Mr. Egleston estimates, will be between 5,000 and 6,000 units. Basford Co. has its own retail sales organization, most of the salesmen being obtained either through newspaper advertising or through cooperation from the personnel department of Pacific Gas & Electric Co.

In training salesmen, the distributorship has its own special personnel department, which gives newcomers an intensive course in the fundamentals of refrigeration salesmanship. This is backed up by regular meetings throughout the year, at which other sales problems are threshed out and settled.

Users have been a valuable source of prospects; newspaper advertising has been another, and a special program of cooperation with women's clubs, with awards offered for prospects who buy, has been a close third. The "Friends of Kelvinator" campaign, too, was a valuable bit of promotion work for his company, Mr. Egleston said.

* * *

Tobin Attacks Long Guarantee Schemes

THOMAS J. TOBIN of the sales promotion department of George H. Eberhard Co., Grunow distributor, thinks that the refrigeration business would be more profitable if it were put on the same basis as the automobile industry. Service plans, for both distributor and dealer, are too much out of line to permit them the profit they should have, he thinks.

He'd like to see service policies in the refrigeration industry similar to those in the automobile field—shorter service guarantees, for example. Such a policy, in his opinion, would relieve the distributor and dealer of a lot of profit-gobbling expense, and at the same time allow them to build up a lucrative business in parts—a business to whose profits, he feels, they, as the original agents, are rightfully entitled.

The distributorship sold 3,800 refrigerators last year, and expects to sell 4,000 this year, Mr. Tobin says, through its 182 dealers. Last year 10% of the dealers accounted for about 75% of the sales, and Mr. Tobin figures it will be about the same way this year, too. The average dealer, he says, will sell about 25 units a year; a good dealer will sell 100 or more.

The Eberhard Co. has no retail department, but trains salesmen for its dealers through a school which is in session at all times at its home office. For experienced salesmen, periodic meetings are held in the territory, at which latest sales information is disseminated.

Cooking schools have been a prolific source of prospects, Mr. Tobin reports. Mass demonstrations, with movie slides, have also been widely and successfully used.

A system of humidified air for mechanical refrigerators, Mr. Tobin says, would be a design development which would do a lot to make sales easier and lessen competition from ice refrigerators.

A Letter from the Servel Distributor in New Zealand

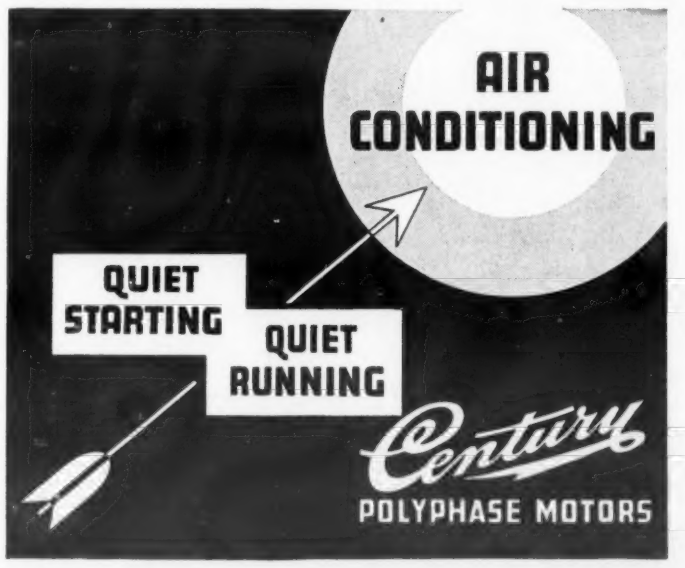
Bond & Bond, Ltd.
Auckland, New Zealand
Servel Electric Refrigeration
11th February, 1936.

The Editor:

Your letter dated 25th November came in during the writer's absence on vacation and from recent issues of your publication, it would seem probable that Mr. G. Taubeneck is already on his way. However, if he should pass through Auckland the writer would be very glad to have the opportunity to discuss conditions relative to refrigeration business in this territory. H. V. Coe, Manager.

Telling the Editor How They Do It

Upper row, left to right: Thomas J. Tobin of George H. Eberhard Co., Grunow distributor; G. P. Egleston of H. R. Basford Co., Kelvinator distributor, and Mr. Kimberlin. Lower row: Elliott M. Epsteen, secretary of Domestic Refrigeration Wholesalers Association of Northern California, and Mr. Robertson; Malcolm T. Bard, manager of G-E Kitchen Waste Unit sales, a visitor to California from Cleveland headquarters.



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that has been designed and built into the New Line of Century Squirrel Cage Motors . . . Sizes up to 600 Horse Power.

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REMARKABLY FREE FROM VIBRATION

Air Conditioning

Frick Adds 2 Units To Low Pressure Line

WAYNESBORO, Pa.—Frick Co. has added to its line of low pressure units two more machines with rated capacities of 15 and 20 tons, designed particularly for use with Freon on air-conditioning work.

The 15-ton machine has a three-cylinder compressor, with bore and stroke 4¼ by 4¼ inches. The 20-ton unit has a four-cylinder compressor of V-type, bore and stroke being the same as on the smaller machine.

Compressor has specially developed double ring-plate valves, to provide quiet operation and the large gas passage necessary for efficiency. Cylinder heads, held down by springs instead of bolts, are said to permit elimination of wasteful clearance.

Condenser consists of two coils of large-diameter copper pipe, inside of which are nested a series of copper tubes which carry the cooling water, in counter-current fashion. Four internal tubes are used in the condenser of the three-cylinder unit; five in the four-cylinder one.

In this way, it is claimed, a large amount of cooling surface is presented to the hot gas surrounding the group of water tubes; and, in addition, each stream of water is made to absorb the maximum amount of heat by traveling at a rapid velocity through a comparatively narrow passage. Flow of water is controlled automatically to suit the refrigerating load.

Mounted above the condenser are the motor, automatic starter, and water regulator. Four jack screws at the corners of the motor base plate permit tightening of the V-belts to desired tension.

All parts of the unit are mounted on a strong base frame of steel channels, 8 inches deep. Liquid receiver is inside the base.

The units are assembled at the factory, and are charged with oil and sufficient refrigerant to create a pressure before being shipped.

Simmons Manages Air Conditioning Sales of Servel Distributor

NEW YORK CITY—Harry H. Simmonds, formerly associated with Frigidaire Corp. in this territory, has been appointed manager of the newly formed air-conditioning department of Majestic Refrigerator Corp., distributor of Servel commercial refrigeration and air-conditioning equipment in this city.

Five men have been appointed sales supervisors: Winn Weldon, who will contact department stores and chain ladies' and mens' wear stores; Jack Brady, contacting architects, builders, and contractors; P. B. Von Brecht, hotels and taverns; Earl Burnside, offices and independent restaurants; and Wallace Furman, who will contact chain restaurants and miscellaneous chain stores.

In the department's engineering division is Andre Merle, consulting engineer, and George Belsky, chief draftsman.

At present the department is employing 42 salesmen, each supervisor having charge of six men.

Air-conditioning activities of the company were separated from its commercial refrigeration activities on Jan. 1 of this year.

Majestic Refrigerator Corp. has 225 salesmen in its commercial and air-conditioning departments, contacting prospects in the New York metropolitan territory only. The company has its headquarters at 333 West 52nd St., with a large showroom devoted entirely to the display of commercial equipment and display cases.

Featured in the display is the line of "Craftsman" display cases, made by Fleetwood Craftsman, Inc., Fleetwood, Pa.

Murray Bergman is the general manager of the company; Samuel Lee is the general sales manager; and Louis Coleman is the general service manager.

University of Illinois Plans Users' Meeting On Air Conditioning

(*Concluded from Page 1, Column 2*)

Features of Heating Systems," S. Konzo on "Factors Affecting Fuel Saving," and an inspection of the air-conditioning test plants in the mechanical engineering laboratory and the research residence at the university.

At a banquet scheduled for that night, to be presided over by President Willard, Dr. W. H. Welker, professor of physiological chemistry of the University of Illinois College of Medicine, will speak on "Air Conditioning and Its Effect on Hay Fever and Asthma."

Prof. Kratz will preside at the morning session of the conference's second day. Speakers at this meeting include W. H. Severns, professor of mechanical engineering, who will explain the problems connected with "Estimating the Humidification Requirements of Residences"; F. B. Rowley, professor of mechanical engineering at the University of Minnesota, whose subject is "Air Filters in Air-Conditioning Systems"; and E. L. Broderick, research assistant in mechanical engineering, who will speak on "Air-Conditioning Equipment."

At the afternoon meeting, presided over by Prof. Severns, H. J. Macintire, professor of refrigeration, will explain "Estimation of Comfort Cooling Requirements"; M. K. Fahnestock, research assistant professor of mechanical engineering, will talk on "Research in Summer Cooling at the University of Illinois"; and those in attendance will be taken on a second tour of air-conditioning test plants in the mechanical engineering laboratory and the research residence.

Hart & Cooley Issue Catalog On Registers & Grilles

CHICAGO—"Air-Conditioning Registers and Grilles" is the title of a new 36-page catalog issued by the Hart & Cooley Mfg. Co.

One section is devoted to the problem of air distribution, and charts and forms to aid in selecting the proper type and size of grilles are included.

Types of Places Where Air Conditioning Has Been Installed in Miami and Kinds of Systems Used

The following report of air-conditioning load taken on the lines of Florida Light & Power Co., Miami, Fla., was furnished by C. K. Lingo of the utility.

Type of Business Prior to 1934	Type of System	Maker of Principal Equipment	Rated Tons	Connected Load Hp.
Theater	Central	Liquid Carbonic	80	160.00
Theater	Central	Carrier	150	275.00
Theater	Central	Carrier	100	137.00
Cafeteria	Central	Frick	50	56.00
		Total	**380**	**628.00**
During 1934				
Funeral Service	Unit	Westinghouse	6.00	8.70
Funeral Service	Central	Frigidaire	6.00	8.00
Beauty Shop	Central	Carrier	12.80	12.25
Beauty Shop	Central	Carrier	21.80	17.25
Department Store	Central	Carrier	58.50	70.00
Department Store	Central	Frick	54.00	74.50
Ladies Dresses	Central	Carrier	30.10	33.80
Ladies Dresses	Central	Carrier	3.60	4.05
Restaurant	Central	Carrier	9.40	12.50
Residence	Unit	Frigidaire	.75	1.10
Restaurant	Central	York	8.00	10.50
Candy Factory	Unit	Frigidaire	2.00	2.20
Utility Office	Central	York	8.00	14.00
Optician's Office	Unit	Carrier	1.00	1.10
Private Office	Unit	York	1.00	1.10
Private Office	Unit	Frigidaire	.75	1.10
Private Office	Unit	Westinghouse	.58	.60
Bakery	Central	Drying Systems, Inc.	...	5.50
		Total	**224.28**	**278.25**
During 1935 to November 30				
Apartments	Duct	Carrier	2.00	2.06
Shoe Store	Duct	Carrier	3.92	3.50
Show Room, Gen. Office	Duct	Carrier	12.15	12.50
Barber Shop	Unit	Carrier	3.00	2.20
Residence	Unit	Carrier	1.30	1.03
Residence	Duct	Carrier	1.13	1.19
Banking Room	Duct	Carrier	25.50	25.75
Optician's Office	Duct	Carrier	2.05	1.87
Residence	Duct	Carrier	9.50	9.87
Department Store	Duct	Carrier	57.10	59.50
Theater & Offices	Duct	Carrier	132.00	145.00
Broadcasting Station	Duct	York	20.00	24.83
Instrument Repair	Duct	Frick	1.50	1.52
Optometrist Office	Unit	Frigidaire	.37	.52
Theater	Duct	York	48.00	63.75
Residence	Duct	Westinghouse	2.00	2.05
Private Office	Unit	Frigidaire	1.90	1.55
Restaurant	Unit	Frigidaire	5.00	5.75
Private Office	Unit	Chrysler	1.00	1.12
Shoe Store	Duct	General Electric	10.00	12.00
Tailor	Unit	Frigidaire	2.00	2.05
Jewelry Store	Unit	Kelvinator	2.75	2.05
Dentist's Office	Duct	Chrysler	1.37	1.62
Dentist's Office	Unit	York	.70	.72
Audition Room	Unit	Kelvinator	.50	.55
Private Office	Unit	Frigidaire	.75	1.02
Rest Rooms	Unit	Fairbanks-Morse	2.00	2.05
Beauty Shop	Duct	York	5.50	6.75
Real Estate Office	Unit	Chrysler	2.00	2.12
Show Room Office	Duct	Bryant & Chrysler*	4.50	7.00
Court Room	Duct	York	22.00	38.00
Casino & Offices	Duct	Frick	200.00	324.00
Residence	Duct	Frigidaire	1.00	1.05
5 & 10¢ Store	Duct	General Electric	94.50	120.00
Stock Exchange	Duct	Frigidaire	3.00	3.21
Dentist's Office	Unit	Frigidaire	1.00	1.05
Coffee Shop	Duct	York	3.00	3.30
Residence	Unit	Kelvinator	2.75	2.60
Projection Room	Unit	York	1.00	1.05
Bar Room	Duct	Bryant & Chrysler*	....	10.00
Residence	Duct	Carrier	1.00	1.04
Bar Room	Duct	Bryant & Chrysler*	6.25	4.00
		Total	**696.99**	**912.79**
		Total to Nov. 30, 1935	**1301.27**	**1819.04**
Installations Since Nov. 30, 1935				
Shoe Store	Duct	York	8.50	10.00
Operating Rooms	Duct	Chrysler	4.80	5.75
Residence	Duct	Chrysler	1.40	1.75

*Gas and electric.

Air Conditioning Made Possible Faster, More Accurate Production of Controls

BOSTON—Installation of a three-quarter ton Westinghouse air-conditioning system in the testing division of United Electric Controls Co.'s plant has made possible more accurate calibration of thermostats, speeded production, and lowered operating costs, says B. W. Dezotell, president.

Before installation of the system, Mr. Dezotell says, it was necessary to test thermostats which the company manufactures for oil burner, stoker, and other services under conditions unfavorable to both accuracy and comfort.

With the present system, which has been in operation for two years, the company has noticed a reduction of about 50% in the cost of testing thermostatic switches, a satisfactory control of the atmosphere in the test room, freedom from colds suffered by employees under the old system, where air was fan-blown across ice cakes, and no maintenance expense whatever. Cost of operating the system, Mr. Dezotell says, is about $1 per working day.

The tests are made in an insulated room, 14 by 12 by 10 feet in size, with its walls filled with rock wool to a thickness of 3 inches. The test room is on the same floor as the main shop, and is convenient for deposit and overnight storage of thermostats produced each day.

The thermostats are brought into the test room after manufacture, and stocked for 12 hours or more on shelves along the walls. In lots of 22, the units are hung on a test rack, each unit being connected to throw on a pilot lamp when the temperature rises 1° F. above or below the setting of the instrument.

A master thermostat controls the operation of the air-conditioning system, and normally keeps the room at 70° F. Thermostats are adjusted while in the test position, most of the tests being made on the 70° F. base.

About 400 units may be stored in the room, the air-conditioning system, which includes dehumidification, removing the latent heat in the equipment during the night run. The system has ducts for recirculation of air, and dampers for admission of outside air when required.

Range of the system is from 50°, at 90° outside temperature, to 84° F., and may be used as desired for maintaining the test room at closely controlled intermediate points, variable according to the type of control apparatus being tested. The system is driven by a ½-hp. motor, and is equipped with a fan motor for air circulation.

WANTED:

Distributors, in a few selected territories, to sell this

YORK

Portable

Air Conditioner

HERE IS A WONDERFUL OPPORTUNITY, in selected territories, for a few established Distributors with good Dealer coverage, and who are at present selling electric household refrigerators, electric washers, radio or other similar equipment.

This York Portable Air Conditioner is an outstanding value for you to sell . . . for a consumer to own. Prospects are plentiful, for every home, office, hospital and hotel room can use one. *And use it this coming summer!*

No Plumbing or Water Connections of any kind

Compact, it occupies only a trifle over five square feet of floor space. Completely self contained, it needs only a simple connection to a power supply and the insertion of the short duct to the window and it is ready for work . . . cooling, dehumidifying, filtering and circulating fresh clean air in the room.

There are sizes to cool all standard size rooms. You don't have to carry a huge stock. Remember too, these York Units have the benefit of National Advertising in Saturday Evening Post, Time, Fortune and Business Week back of them.

Couldn't you sell units like that? You bet you could. Fill in the coupon for a York franchise TODAY . . . before someone else ties up your territory.

YORK ICE MACHINERY CORPORATION, YORK, PA.
Please send me full details on the York Portable Franchise if it is open for my territory.

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*Firm Name*_____

*Street*_____

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HIGHEST **Filtrine** EFFICIENCY

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COMMERCIAL — AIR CONDITIONING

From 2 gals. per hour to 500 gals. per minute

WATER FILTERS — STEEL PIPE COILS

FILTRINE MFG. CO., Brooklyn, N. Y.

Air-Conditioning Development in St. Louis

	To Dec. 31, 1933		Year 1934		Year 1935		Total to Dec. 31, 1935	
	No.	Kw.	No.	Kw.	No.	Kw.	No.	Kw.
Personal Comfort								
Residences	58	107.75	70	107.35	68	108.69	196	323.79
Offices	40	161.09	34	287.46	35	142.45	109	591.00
Office Bldgs. (Complete)	1	300.00	1	53.00	1	39.00	3	392.00
Total Comfort Instal.	99	568.84	105	447.81	104	290.14	308	1,306.79
Commercial								
Banks	..	....	2	47.75	1	12.75	3	60.50
Beauty Parlors	..	....	2	3.25	1	2.50	3	5.75
Brokers' Board Rooms	3	75.75	..	....	1	39.75	4	115.50
Clubs	..	....	1	9.00	3	117.00	4	126.00
Hospitals	..	....	1	.40	..	....	1	.40
Hotels (Including Dining Rooms, Etc.)	10	548.13	3	52.00	2	24.25	15	624.38
Miscellaneous	3	5.00	4	24.63	2	795.00	9	824.63
Restaurants and Liquor Dispensers	6	316.00	7	140.21	17	270.60	30	726.81
Retail Stores	15	513.25	10	112.05	25	382.40	50	1,007.70
Sales and Display Rooms	10	70.50	7	26.36	8	13.45	25	110.31
Theaters and Auditoriums	8	2,669.25	2	66.75	5	1,611.00	15	4,347.00
Undertakers	1	16.00	2	9.50	5	84.93	8	110.43
Total Commercial Instal.	56	4,213.88	41	491.90	73	3,353.63	167	8,059.41
Industrial Processes	16	807.95	4	80.75	13	364.39	33	1,253.09
Total Installations	171	5,590.67	150	1,020.46	187	4,008.16	508	10,619.29

York Offers Optional Winter Features on New Conditioner

YORK, Pa.—Just introduced by York Ice Machinery Corp. is a new portable air conditioner, model BA-100, a companion to the first portable York air conditioner which was introduced last year.

Claimed as new features for the model BA-100 are immediate freshening of room air whenever smoke or odors accumulate, increased cooling capacity, and the optional functions of heating and humidifying in the winter.

In the operation of these portable conditioners, room air enters through a grille in the end of the cabinet, and is conditioned and discharged out the top. Outside air, drawn in through the rear duct "adaptor" or window connection, is used for two purposes; part of it is added to the room, and part is circulated across the condenser of the refrigerating unit and discharged outdoors.

The new air freshening device consists of a hand-operated damper which can be opened in order to "pump out" a room. This becomes desirable when several people have been smoking so much in a room that the normal introduction of fresh air is inadequate.

Outside air is cleaned by a replaceable filter in the duct connection, while room air is cleaned by a second replaceable filter directly under the return air grille. New feature of the BA-100 is an electrical panel whose connections permit operation of the unit on either 110 or 220 volts a.c.

Model BA-100 is 45½ in. long, 17¼ in. deep, and from 36 to 45 in. high, depending on the adjustment of the telescopic duct adaptor which is fitted under the window sash to bring in outside air.

68 St. Louis Homes Are Air Conditioned During 1935

ST. LOUIS—On the basis of a nation-wide survey of air-conditioning installations made by ELECTRIC REFRIGERATION NEWS, with the cooperation of public utility companies, St. Louis continues to lead the way in the application of comfort cooling to residential use.

Of the 187 air-conditioning installations made here during 1935, 68 were in private residences throughout the city, to bring the total to 196, almost 40% of the 508 installations of all types made in St. Louis up to this time.

In fact, 104 "personal comfort" installations were made in the city last year, either in residences, private offices, or office buildings, bringing the total for applications of this type to 308.

The 187 air-conditioning installations of all types made in St. Louis last year passed by 37 the 150 reported for the whole of 1934, and exceeded by 16 the number of installations made in all years before 1934. The 68 residential installations represented a decline of two from the 70 reported during 1934; nevertheless, residential conditioning held up well.

In the private office field, 35 installations were made, to pass by one the total made during 1934. One complete office building was conditioned, bringing the city's total in this field to three.

In the commercial field, as well as in that of industrial processes, notable increases were reported. Most notable was the increase in retail stores, where 25 installations were reported, equalling the total for all previous years. Seventeen restaurants and cocktail lounges were conditioned last year, whereas only 13 had been conditioned in all the years before.

Sales and display rooms also increased their use of air conditioning last year, eight applications in this field being reported to bring the city's total for this type up to 25. Seven such installations had been made in 1934.

In the theater field, five installations were made last year for a total of 1,611 hp., where only two, for 66.75 hp., had been made in 1935. Fifteen buildings of this type in St. Louis are now conditioned. Three club headquarters were also conditioned during the year, to bring the city's total in this field to four.

One new field—that of bankers' board rooms—was entered during the year, with an installation of this type, totaling 39.75 hp., being reported. Another class which has been quick to sense the practical worth of air conditioning has been undertakers—and five installations of this sort were made last year, bringing the city's total of air-conditioned funeral homes to eight.

Other installations in the commercial field last year included a bank, a beauty parlor, two hotel dining rooms, and two others.

Air conditioning in industrial processes also showed a nice increase for the year, 13 installations of this type being made compared with only four during 1934, and a total of 20 up to the beginning of 1935. The city's total in this field is now 33.

Condition Guinea Pig Room

TUSCALOOSA, Ala.—Air conditioning in a "guinea pig room" of the school of medicine, University of Alabama here, was installed recently by James Arthur Smith Co., Birmingham General Electric dealer.

For study of certain germicidal reactions, a year-around uniformity of temperature and humidity was necessary.

McCORD Refrigeration PRODUCTS

COMMERCIAL EVAPORATORS

DOMESTIC EVAPORATORS

CONDENSERS

METLFLEX ICE TRAYS

SPIRAL FINNED TUBING

AIR CONDITIONING SURFACE

McCORD RADIATOR & MFG. CO.-DETROIT

How FEDDERS Complete Low Sides Give You

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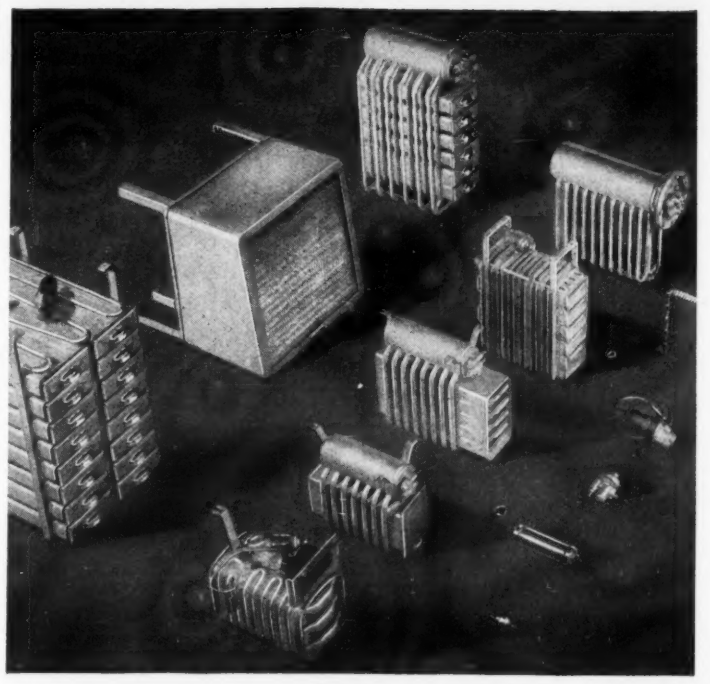
WHEN YOU NEED IT

WHERE YOU NEED IT

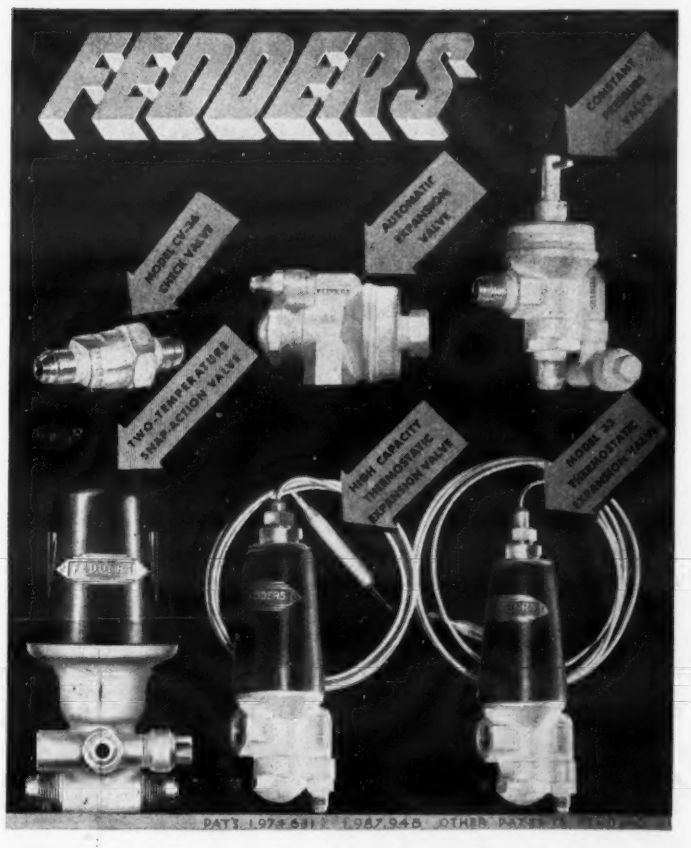


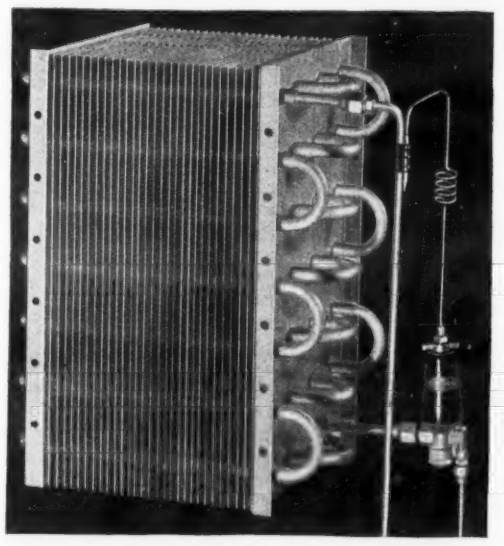
The complete line of Fedders Coils, Evaporators, Ice Cube Makers, Forcedraft Unit Coolers and Valves gives you the *correct* size and capacity to fit your needs EXACTLY. With Fedders branches and distributors everywhere, you get what you need, when you need it, where you need it.

ABOVE: There is a Fedders Low Side for every application from the smallest cabinet up to cooling large storage rooms. You can standardize on Fedders!

RIGHT: Fedders Valves provide easy, sensitive adjustment for accurate refrigerant control on single and multiple systems.

BELOW: Fedders Non-Frost Commercial Evaporators are built in four lines with thousands of sizes to fit every condition.





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Borg-Warner Service Parts Co.
H. Channon Company
George Monjian
The Airo Supply Co.

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Republic Electric Co.

DAYTON, OHIO
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DENVER, COLO.
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FERNWOOD, MISS.
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Home Appliance Service Co.

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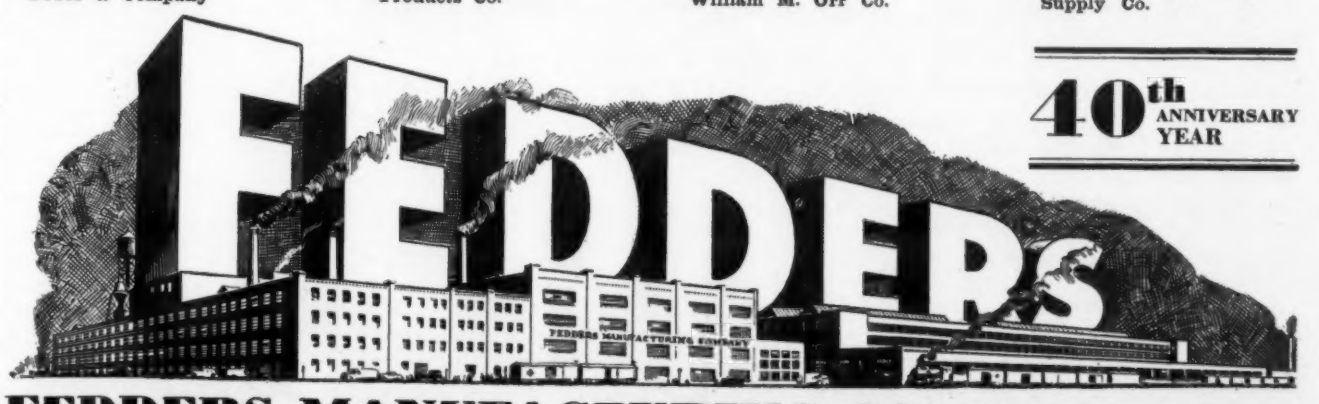

40th ANNIVERSARY YEAR

FEDDERS MANUFACTURING CO., BUFFALO, N.Y.

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Department Stores Turn to Specialty Selling Methods

"I CAN'T quite figure out from all the conflicting stories I've heard today," said one observer at the General Electric merchandise clinic last week in Cleveland, "whether department stores are just getting into the electric refrigeration business, or just going out of it."

Such confusion in the mind of an observer not close to the situation was easily understandable. On the one hand he had heard grumblings to the effect that electric refrigeration business had never returned a profit to the stores, that volume last year had been sharply curtailed by the inroads of small dealer stores using FHA financing, that department stores were cutting down on the number of lines they carried.

On the other hand he heard appliance department managers tell of the tremendous growth of refrigeration sales in their stores, and of sales plans by such stores pointing to greater expansion.

1,649 Out of 2,250 Stores Sell Refrigerators

Despite this apparent dilemma, department stores appear to be very much in the refrigeration business. Figures presented by one speaker at the clinic showed that of 2,250 department stores covered in a survey, 1,649 were handling electric refrigerators.

In the words of Samuel Einstein of G. Fox & Co., Hartford, Conn., in his address before the clinic: "The active entry by department stores into the major appliance field was induced by the depression." Rapidly falling sales volume of stores, he pointed out, made them look for new fields—and the depression-proof electric refrigerator appeared particularly enticing.

At the same time, Mr. Einstein points out, "manufacturers of refrigeration became aware that wider markets had to be created for the approaching period of mass distribution."

It is likely that many of the leading manufacturers were none too anxious to extend distribution of their lines to department stores. There was the question of how the department store, with its wide trading area, would fit in with the popular and established protected dealer set-up, and also the fact that department stores are notoriously "hard buyers." But at the same time it was apparent that department stores were determined to get into refrigeration, and failing to get a nationally known brand, they would turn to private brands and push them to the full measure of their local prestige. The manufacturers answered this problem by letting department stores take on their lines.

Department stores weren't enthusiastic about several phases of established specialty selling practices such as outside canvassing, assumption of delivery and service responsibilities, protected dealer territories. Anent this Mr. Einstein says:

Refusal of Stores to Assume Service Was a Sore Spot

"The stores' reticence at the outset to assume the delivery, service, and installation phases associated with this business was a sore spot . . . the stores' failure to undertake the installation and service responsibilities emphasized the strength of the appliance dealer set-up to the manufacturer. The dealer conformed to all the practices regarded essential to the specialty business and the manufacturer was hesitant about making any deviations that would alienate the dealer."

Thus, these first few years that the department store has been in the refrigeration business has been one of conflict and adjustment, with the result that both the stores and the manufacturers had to make some concessions in the matter of re-shaping their policies.

It should be regarded as something of a triumph for the electric refrigeration industry and its sales executives that department stores, instead of bending the proved sales tactics of a young industry to fall in line with their established sales policies, were forced to swing into step with the specialty selling practices which the electric refrigeration industry had found successful. Mr. Einstein admits this unqualifiedly when he says:

Specialty Selling Formula Now Followed by Stores

"In general it may be stated that the merchandising of major appliances in the majority of department stores now follows a well-established pattern. It is regarded as fundamental that to do this job successfully, the department must be operated along specialty lines, contemplating the organization of a well-disciplined, aggressive, outside sales force. Stores, to do the best job, must be in this business whole-heartedly, assuming the stock risks as well as the delivery service and installation responsibilities."

One particular sore point over which there is still considerable conflict is the matter of a "special" or reduced-price model which department stores claim they need as a leader, particularly when they put on a special drive for refrigerator sales. Since manufacturers and the better dealers have struggled long and hard to maintain established list prices the matter of a "special" has been disturbing.

However, the sentiment expressed at the convention seems to indicate that department stores are yielding somewhat on this point. Said Mr. Einstein with reference to this situation:

Attitude on 'Specials' Is Apparently Changing

"The issue does not seem clearly understood. Maintenance of price is not at stake. Department stores do not desire to have the established price structure disturbed any more than does the manufacturer. Safeguarded by necessary restrictions, such as frequency of sales agreement on price and the scheduling of events sufficiently in advance, so that the manufacturers' production requirements might be synchronized with retailers' demands, it does seem that manufacturers could produce this much-sought 'special' to be used exclusively by department stores for the duration of the one or two events a year."

It is also significant that those present at the clinic voted in favor of such "specials" being a continuation of a last year's model, instead of a new one. Since in most cases dealers can sell year-old models at reduced prices, this does not give the department store any undue advantage.

Better Selling Minimizes Other Problems

Maurice Webb of the Strawbridge & Clothier store, Philadelphia, which has shown substantial increases in its refrigeration sales every year since 1933, answered the charge of an earlier speaker who stated that a department store, to be successful in electric refrigeration, had to have lower terms than other retailers, together with a special. He said, in effect:

"We had no terms advantage last year over anyone else selling the same line that we handle. Our distributor will not allow us to advertise any special that is not available for sale by all his other outlets. In the last analysis of what we have done to increase our appliance business, we are of the opinion that most of whatever degree of success we may have achieved in the past two or three years is primarily due to the salesmen we select, how they are trained, and how their activities are supervised.

In his theme of "perfect your selling organization, and you won't have to worry about other problems" Mr. Webb offered a real sermon not only for department stores, but for all retailers of household electric refrigerators.

Letters

High Hat?

Radio Specialty Co.
829 North Broadway, Milwaukee
March 11, 1936.

Subscription Mgr.:

Your letter of Feb. 26 to Mr. Siegel, our sales promotion manager, together with our check for $19.25 was put on my desk for signature and mailing. I, however, have refused to sign it. As a matter of fact, I am very much burnt up over your so-called group subscription offer.

While we contemplated advancing the money for these subscriptions, each man is to pay for his own subscription. Comparing the value of your periodical with those of other trade magazines on the market, and the offer that those publishers are making to get their publications in the hands of the salesmen, with yours forces me to reject your proposition for our salesmen.

If my memory serves me correctly, we had a group subscription plan, either under Servel or Leonard, on your publication a few years back that amounted to $1.50 or $1.75 per year. Such a plan is more in keeping with deals that are being offered by reputable magazine publishers as an inducement to distributors' salesmen.

If your organization, with its world-touring publisher and its air-conditioned publishing plant, has gone "high hat," so that you are in a class by yourselves, I am afraid that seven members of our organization are going to get along without the valuable aid of REFRIGERATION NEWS. On the other hand, if you have a deal that is reasonable, we shall be glad to reopen the matter.

A. VAN ANTWERPEN,
Secretary and General Manager.

Answer: Pardon sir, but it is the youthful *editor*, not the publisher of this sheet, who is "world-touring." The publisher continues his ceaseless toil to support the paper in the style to which the industry has become accustomed.

It *is* expensive, we must admit, when editors get the habit of going places instead of staying at their desks and using pastepot and shears according to time-honored trade paper custom.

We are grieved by the thought of that check for $19.25 which came so close to getting your signature. We hope you will reconsider and yield to the pleadings of your salesmen. They need the NEWS and they are willing to pay the *regular rates* for group subscription orders.

Please, mister, give 'em a break.

Who Will Be the Goat?

The Harry Alter Company
1728 So. Michigan Ave.
Chicago
March 12, 1936

Editor:

The marathon refrigerator guarantee race started a few years back, looks like a dead heat now that we have the almost universal one year guarantee and four year "protection" contract—with the exception of one manufacturer who is starting a fresh sprint with five more years of "protection."

What a situation for a so-called well organized giant industry to be in! How the automobile makers must shake with silent mirth, with their universally accepted ninety-day guarantee, when they see the refrigeration industry stretching out to five long years of protection. Try and get a free new fan belt on your car four months after you owned it—yet the generous gents in refrigeration will give you a new belt free even if you put in your claim in 1941.

Yet with all this generous protection, we have a dangerous boomerang in the "protection contract." Mr. John Public thinks he is getting a complete guarantee; did not the salesman who sold him the refrigerator tell him so?—and of course you can't expect him to pick out the jokers in the protection contract himself.

So in blissful ignorance of what he really is entitled to, some day maybe two years hence, Mr. John Public will holler for service and be told what? "Oh we don't guarantee thermostats"—or "The light switch is not covered by our protection contract"—or "You will have to pay a labor charge to repair the compressor although you'll get the parts for nothing providing the factory decides they were not subject to abuse." There in a nut shell is the makings of a first class boomerang that can sail back to us in 1938 and while not actually being a major catastrophe, said boomerang can crack some insulated skulls and blacken a few magic eyes belonging to the dealers, distributors, and manufacturers.

Why doesn't ELECTRIC REFRIGERATION NEWS, as the industry's leading publication, undertake to open its columns to the views of big and small dealers, distributors, and factories? With the object in view of getting the consensus on the following important questions:

1. Where and when will the race for longer and bigger guarantees end?
2. Who will be the long-pull goat—the manufacturer, distributor, or the dealer?
3. Will there be more domestic refrigerators sold in 1936 now that the customer gets protection for five years than would be sold if all makers had a one year guarantee?
4. Cannot manufacturers get together and agree on a standard guarantee—and how long should it be for?

There is a fine set of questions to shoot at. Let some of the industry big shots tell us what's what and why. I'll stake my reputation on the fact that thousands of dealers and hundreds of jobbers would like to know the answers.

Let ELECTRIC REFRIGERATION NEWS be the true leader by publishing the views of the trade of this vital subject.

HARRY ALTER, President.

How to Beat the A.B.C.?

Better Business Service
Trade Papers of Merit
2260 Woodlawn Ave.
Niagara Falls, N. Y.

Circulation Manager:

I would like to sell subscriptions to your paper in this territory. I can give you the type of circulation that you want and sell it in the manner that you desire.

I make all calls personally, using no agents. I will guarantee that all orders will be sold at full subscription rates and that no premiums will be used to persuade a potential buyer. I am fully aware of all the A. B. C. rules and abide by them.

My papers are all handled on the same basis, i.e., 70 per cent commission and 30 per cent survey charge on all calls made. This survey includes all the news items that I can furnish.

My references are *Laundry Age*, 330 W. 42nd St., New York, N. Y., *Decorative Furnisher*, 381 Fourth Ave., New York, N. Y.

Hoping that you can use my services.

FRED K. SHRIMPTON.

Answer: Nothing doing! We are not so anxious to impress advertisers with circulation figures that we will pay anybody the *full subscription price* just to get a signature which will count as a paid subscription when records are audited by the A.B.C.

During 1935 we *collected by mail over $20,000 in cash* for subscriptions to ELECTRIC REFRIGERATION NEWS. Now wouldn't we be a sucker to give up that much dough to circulation promotors?

If you ask us, that is what is wrong with the Audit Bureau of Circulations. It is assumed by advertisers that the A.B.C. audit guarantees that the circulation is truly *paid*. The auditors make an exhaustive investigation of all subscription records and ask all sorts of questions, *except* the important one: "Does the publisher *get the money*, and if so, does he turn around and *pay it back* to an outside organization which got the subscriptions?"

The circulation of the NEWS is *paid circulation* and we don't mean maybe.

Good Host in Hawaii

The Geo. H. Eberhard Co.
Wholesale Distributors
Grunow Refrigerators and Radios
290 First St., San Francisco
March 11, 1936.

Mr. Taubeneck:

We were happy to see that your smiling face was on the first page of ELECTRIC REFRIGERATION NEWS of March 4, indicating that our Class "A" Grunow dealer in the Hawaiian Islands is a good host.

You will recall that Ken Connelly of Seattle and myself had quite a lengthy conversation with you last summer at the Grunow Radio Distributors' Convention in Chicago at the Edgewater Beach Hotel.

We know that Mr. Ichida, president of the Electric Supply Co., Ltd., was thrilled to have you as his guest and he has written us a letter to that effect.

Let me say again that we are gratified with the space you have given us on the front page.

H. H. HANSEN,
Vice President.

Industry Statistics

York Ice Machinery Corp.
2121-31 Market Street,
Denver, Colorado

Editor:

For the purposes of a discussion on electric refrigeration and mechanical refrigeration, we would appreciate the following information if it is available:

1. The number of electric refrigerators sold in the first year of the history of electric refrigeration, or in the year when the records were first kept. For instance, if it was 1926, what was the number of electric refrigerators sold that year?
2. The value of that particular industry in dollars and cents in that year.
3. The number of electric refrigerators sold in 1935.
4. The value of the electrical refrigeration industry in dollars and cents in the year 1935.

We appreciate that concerns such as Frigidaire and General Electric probably have their electric refrigeration division tied in with the physical value of other parts of their properties, but if they have that particular industry segregated and if they have figures for the complete industry, we would appreciate having them.

E. A. FROESE
Denver Branch Manager

Answer: First sales figures reported for any year in the history of the electric refrigeration industry, as recorded in the 1935 REFRIGERATION AND AIR CONDITIONING MARKET DATA BOOK, are those for 1920, in which 10,000 units were sold at a retail value of $6,000,000. These figures represent shipments by manufacturers to distributing firms, rather than sales to customers.

The February 5 issue of ELECTRIC REFRIGERATION NEWS reports an estimated total of 1,688,800 unit sales by manufacturers to distributing outlets for 1935. You may estimate the 1935 dollar volume of sales by multiplying the unit total by the estimated 1935 average unit price of $166.

History of the Industry

225 North Yale
Wichita, Kansas

Editor:

Please find enclosed 10 cents in stamps to cover the cost of one copy of the August 28, 1935, issue of the NEWS.

This is the only missing number in my files for the past two years and as I am going to have them bound it would not do for even one issue to be missing.

The NEWS is the most comprehensive history of the industry that I have found. FLOYD BROWN, JR.

Calling on Jobbers

151 Dickinson St.
Springfield, Mass.
Feb. 16, 1936.

Editor:

I am calling on the refrigeration parts jobbers in New England and upstate New York, selling them socket wrench sets and small tools.

I am interested in getting additional lines such as parts, etc.

Can you suggest any firms' names who would be interested in having representation? Any favors would be greatly appreciated.

G. C. SANBORN

In the near future, I intend to subscribe to your paper. I wish to state that it has been very convenient and helpful to keep up with present-day modernizations, through the knowledge that I secure from your publication.—Robert J. Grace, Theta Kappa Phi, State College, Pa.

Department Store Men Debate Sales Policies, Selling Costs & 'Specials' at G-E Clinic

By Phil B. Redeker

In the news story published in last week's issue of ELECTRIC REFRIGERATION NEWS it was pointed out that from the "open forum" discussion at the opening day of the General Electric merchandise clinic it developed that price-cutting, trade-ins, guarantees, and "economy selling" themes were the major problems in refrigerator selling this year as the department store men present at the clinic view the situation.

It was related how the opinions of the merchandise managers were registered by an applause meter in informal votes on some of these matters, and that suggestions were made as follows:

(1) department stores should ask manufacturers and distributors to keep dealers in line on "price-cutting" and other chiseling practices; (2) that those present were about evenly divided on the question of a 1-year, or longer guarantee, with most of those voting favoring the straight 1-year guarantee; that they thought economy selling arguments were valid and should be used; (4) that some steps should be taken to set definite allowances on trade-ins.

The appliance department managers registered their opinions on many another matter during the clinic by means of the applause meter.

Herschel Lutes of the J. L. Hudson Co., Detroit, posed the question: "Will appliance division, pointed out that a home demonstration is effective because it is easier for the salesman to sell a refrigerator if it is right in the prospect's home where he can demonstrate it.

Argument on Home Trial Plan

"The refrigerator's unit price makes its purchase a major decision on the part of a homeowner," Mr. Cameron explained, "and the salesman will find it easier to sell if he has a refrigerator right on hand in explaining its features, rather than trying to do it by word pictures."

Some of the merchandise managers declared that a good organized plan must be set up and carried out to make home demonstrations effective, and that department stores usually weren't set up to do a good job. Others said that the plan was all right in cases where the distributor made the delivery, and picked up the returns. Proper credit investigation of the prospect and some form of a down payment were suggested as factors which would make such a plan more profitable and effective.

The vote on this question showed that most of the department store men were against home demonstrations on refrigerators, with a minority for it. The vote was unanimously for home demonstration of washing machines, however.

The discrepancy in the vote in favor of washing machines was due to the fact that (1) demonstrations of washers has become an established merchandising custom; (2) there is much more to demonstrate about the operation of a washer than a refrigerator.

Want Bigger Margins

At various times throughout the two-day clinic a number of the appliance department managers who were either on the program, or speaking in the open forum discussions, made somewhat sly references to the effect that refrigeration business hadn't been profitable to department stores because the margin allowed them wasn't sufficient to provide a profit.

Other speakers declared that there was a profit to be had in refrigeration, but that cumbersome and unjust (to the appliance department) accounting systems wouldn't allow it to be shown.

Probably the best informed answer to the question "What about accounting" was given by Samuel Einstein of the G. Fox Co., Hartford, Conn.

In answering a question about the Clark plan of accounting for appliance departments, Mr. Einstein said that whereas in the past net profit was gross profit less the combination of direct expenses plus overhead expenses, but that under the Clark plan the charges were less on the theory that overhead expenses would exist whether an appliance department was in existence or not, and therefore shouldn't be so heavily applied against the appliance department. In Mr. Einstein's opinion, the re-apportionment of expenses under the Clark plan is very arbitrary, and it is questionable as to whether the plan would give a true picture.

Apportionment of Expenses

"Since direct expenses can safely be said to be 75% of the total cost of operating an appliance department we can determine what that cost is," said Mr. Einstein.

"These figures give the maximum, or upper limit of the cost of operating an appliance department, expressed in percentage of the retail sales price."

Salaries and commissions	17%
Delivery & Service	6.2%
Advertising	5%
Total Direct Expense	28.2%

As direct expense is three-fourths of the total cost, it is then easy to figure that the upper limit total cost of operating an appliance department is 37.6%, on the average, of the selling price of the refrigerator.

Anent the question of "specials," most of those attending the clinic seemed to feel that they were necessary for successful department store operation. When asked just what kind of a "special" they thought it best to handle, the merchandise managers voted for a last year's model to be continued as a "special" in the new year's line, against a new model designed as a new "special."

There was some discussion as to the means of meeting mail-order house competition, with some suggestion that it should be done on a price basis, although many of those present seemed to agree with the sentiment expressed by J. K. Holley of J. Bacon & Sons, Louisville, Ky., who recommended that the way to beat mail order competition was to "have a quality story, and be sure that you get to tell it to the prospect first."

Department Store Selling Methods

On this and pages 12, 13, 14, and 15 is a report of the papers delivered and the open forum discussions held at the General Electric Merchandise Clinic for department store appliance managers last week at Nela Park, Cleveland.

Among the many problems discussed at the Clinic were such pertinent ones as "special models," home trial plans, selling expense, cold canvassing, "spot displays," trade-ins, guarantees, number of salesmen that should be employed. Informal votes were taken on a number of subjects to determine how department stores stand with regard to some of these problems.

Speakers at the clinic were appliance department managers from stores in large cities and small towns.

Lack of space prevents the complete report from being published in this issue. A particularly able presentation of how a re-sale department operates in a department store was given by Maurice Webb of Strawbridge & Clothier, Philadelphia, and will be published in the next issue of the News.

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distribution of refrigerators to the lower income market be by the same high grade type of retailer as has sold refrigerators heretofore, or will all kinds of 'back alley' dealers be allowed to sell to this market."

The appliance department managers voted unanimously that the manufacturers should attempt to keep distribution of their refrigerators on the same high dealer plane that it has been in the past.

Votes were taken on all kinds of merchandising methods and ideas. The merchandise managers were found to favor unanimously the establishment of a home service staff. It was their opinion that special "showings" or "stunts" of the kind described by J. B. Ogden of the J. L. Hudson Co., Detroit, would be most effective if held twice a year.

A preponderance of opinion was for manned instead of "dummy" outlying displays.

Cold Canvass Beaten

Vote on "cold canvassing" by appliance department salesmen showed the opinion of those present equally divided, half favoring the plan, the other half against it. All were in favor of having salesmen follow up leads by outside activity, however.

"Are home demonstrations productive and not too expensive?" was one of the questions which evoked a considerable amount of discussion.

A representative of the C. F. Hovey Co., Boston, declared that the G-E distributor had sold 93% of all the refrigerators he had sent out on a home demonstration plan, and that 33% of all the distributor's sales were by home demonstrations.

Ralph Cameron, assistant general sales manager of the G-E specialty

IT'S A WINNER!

You'll be "in the money" with Westinghouse Commercial

To get *action* from buyers, to enjoy a keen edge on competition, and to make money, sell Westinghouse Commercial Refrigeration.

Westinghouse dealers are riding with a winner, getting "in the money," in 1936. Exclusive Westinghouse hermetically-sealed units, exclusive 5-year protection plan, both give you a running start.

With these advantages you can offer your buyers new dependability, new economy, new freedom from refrigeration worries, not obtainable with any other commercial line. And you'll get *action*.

Forget about BTU's, and talk about SALES

The new Westinghouse SIMPLOGRAPH, the easy estimator, enables your salesmen to select equipment on the spot. Sales are made easier, faster, with less supervision and less expense to you. And the hermetically-sealed units make installation unusually simple . . . almost a "package job."

RIDE WITH A WINNER

Hermetically-sealed units, 5-year protection plan, and the Simplograph, are three big, exclusive reasons for selling Westinghouse Commercial Refrigeration. Better still — they are wrapped up in a Simplified Selling Plan that brings results. To make money with "commercial", see the Westinghouse distributor, or write to Westinghouse Electric & Manufacturing Company, Mansfield, Ohio.

Westinghouse Safety Zone REFRIGERATION

Ogden Tells How to Plan and Conduct Special Showings to Boost Refrigeration Sales

How a department store can obtain increased business from special refrigeration shows, and how such shows should be planned, were explained in detail by J. B. Ogden, manager of the electrical department, the J. L. Hudson Co., Detroit.

Main problems facing the appliance department manager in a department store is how to attain the greatest possible volume at the greatest maintained mark-up, and keep the controllable expense low enough so there will be a net profit, Mr. Ogden declared.

As volume is directly dependent upon traffic of prospective customers, Hudson uses "showmanship" in promotions to obtain that traffic, Mr. Ogden explained.

Adopt Specialty Sales Methods

"After department stores became interested in the sale of appliances, they found it was necessary to adopt some of the methods and practices used by the specialty organization if they wished to obtain any degree of success," stated Mr. Ogden.

"There are certain practices by specialty organizations, however, that are not in keeping with department store policy and generally could not be accepted.

"This called for a new specialty selling application that would not be as irritating to the customers of the store, as the home approach method usually is, and which would be less costly. Thus there has been evolved what might be termed 'specialty department store selling.'

Floor Traffic Important

"In a department store operation, the factors that influence store traffic are of utmost importance as specialty department store selling, to a very large measure, is based on store traffic of prospective customers.

"In our planning, we have attempted to work out ways and means to increase traffic to more ample proportions on our floor and in the department at a lowered cost per customer. The problem is to bring the customer to the merchandise and have her see it attractively displayed in a 'buying atmosphere.'

"When this is done, the sales resistance is tremendously reduced, as compared to the specialty method of 'cold turkey' presentation in the home. This also results in a marked reduction in direct selling costs and fewer customer complaints. To augment the normal flow of traffic we have devised various services and promotions.

Work of Home Service Bureau

"The General Electric Kitchen, which we installed five years ago, has developed into a Home Service Bureau, which handles monthly thousands of requests for information received from the housewife—our prospective customer.

"This service includes the distribution of menus, planning of parties, helping on home decorating problems, particularly in the kitchen, the selection of merchandise, conducting cooking schools, and a wide variety of service activities intended to keep the floor prominent in the customer's mind when she is in need of household articles."

Expositions and Shows

Expositions and shows, said Hudson's appliance department manager, may be divided in two classifications: Those inside the store, and others outside at fairs, builders' shows, flower shows, etc.

"The ones in which we are more interested and are more important are promotions inside the store," he explained. "These should be planned for your own selling floor, if it is a divisional promotion; or especially to your own selling area if it is departmental.

"Keep in mind the fact that your 'merchandise and sales hospitality' takes place in the confines of your own department. Do not move to the auditorium to hold a show in which you wish to present and sell merchandise that is shown 52 weeks out of the year in your own sales area.

Use Sales-Floor for Show

"Even if you are crowded, it is best to move off one-third of your merchandise and stay 'at home.' It is a revelation to see how much more inviting it is to have the floor opened up. It helps to impress the customer with a change and has a welcome effect on your own organization.

"Floor-wide or divisional promotions, such as housewares expositions, embrace a group of departments as found on our own tenth floor, which includes lamps, china and glassware, housewares and electrical appliances, can be the means of selling the floor to the community for a long period of time. The repetition of these expositions can be made a very important factor in building up traffic and sales volume throughout the year.

Housewares Exposition

"The one held for three weeks last January, was our Fourth Annual Housewares Exposition. It was attended by thousands of Detroiters. They looked forward to the event and inquired about it months in advance. Various estimates have placed attendance from 90,000 to 105,000 people for the first week, with excellent sustained interest for the other two."

Hudson's January Exposition is not planned as a sales event, that is, a direct sale of specially priced merchandise; in fact, very few items are specials, it was pointed out by Mr. Ogden. It is designed to take a slow month and sell the floor to the city, but has nevertheless resulted in making January a good volume month.

Features of the exposition are things new and different; action displays; unusual still displays; demonstration of devices; fabrication of various products; exhibits that are educational, interesting, and entertaining; a magician, or even a black-faced funny man.

According to Mr. Ogden, the first exposition is a hard one to put over.

"The next one," he says, "can be planned through the year by keeping a folder to catch notes or stunts, and ideas that you think usable. It is a very good idea to take time out and make notes at or near the close of a show on the 'hits' and 'duds' for future guidance.

"Success of an exposition or show depends on careful planning and definite execution of the plan. There are a myriad details that someone must handle. The master plan is talked over and organized and the detailed departmental plans must be kept in mesh with the master plan and other departmental plans."

Summary of Plan Used

Some of the main points in Hudson's plans are as follows:

I. Get your own and other organizations interested including: (1) manufacturers and suppliers; (2) utilities; (3) newspapers; (4) your own executives; (5) advertising department; (6) service department; (7) display department; (8) your store employees; (9) get customers talking about it.

II. Displays and their arrangement: (1) loud colored signs and overhead canopies may be used; (2) keep a uniformity of color scheme, but have it unusual; (3) colored light enclosures; (4) spot feature displays, not necessarily by department; (5) work from a blue-print of the complete floor plan.

III. Advertising of various kinds: (1) newspaper; (2) radio; (3) Shopping News circular; (4) package stuffers; (5) exposition directory; (6) first floor posters; (7) window posters; (8) insert notices for customers' statements; (9) invitations sent to schools and other organizations.

IV. Feature, or main attractions. These should be changed weekly.

V. A floor public address system to announce events and where various displays may be found.

Three Promotional Periods

"To a large extent," averred Mr. Ogden, "the volume of business in refrigeration we obtain during the first half of the year is dependent upon three definite promotional periods of short duration. These are called, for the purpose of advertising: (1) The Spring Refrigerator Display, (2) Hudson's Annual Refrigeration Show, (3) The May Display of Refrigerators.

"Last year these three show periods totaled 43 selling days, or approximately seven weeks out of March, April, and May. During the 43 days, we sold 40.5% of the year's volume. In 1934, in 42 days, we accounted for 42% of the year's sales.

New Models Shown in Spring

"In the Spring display, opening early in March for 10 selling days, we show all the new models of the different lines, impressing this fact in our advertising. On the floor, all the new models are designated by stickers or other means indicating they are the latest models. This show is a 'warming up' period to get customers to think of Hudson's as a place to buy. Unit sales per day do not average as high as the later shows.

"In the Annual Refrigeration Show (this year being the eighth), and in the May Display, new 1936 models will be featured with certain 1935 models specially priced.

Customers Expect Wide Variety

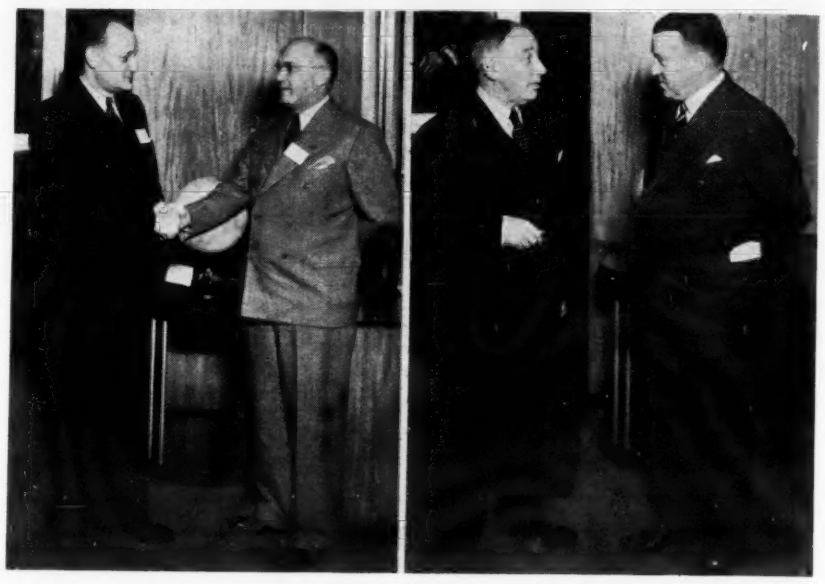
"In Detroit we believe that Hudson's leads the department store field to such an extent that our customers expect to find a much wider variety from our store than possibly from others in the city.

"This variety idea gives us the opportunity to emphasize such facts in our advertising as 'Here you may select a refrigerator to best fit your needs, making comparisons with other makes all on one floor, with a minimum of effort;' 'Receive the unbiased opinion of experts as to the best model and make to fill your requirements.'"

A plan in detail for such promotions should be submitted for approval to the merchandising management and the publicity director covering everything required in merchandise, advertising, personnel, decorations, and it is best to have their okay inscribed thereon. This is important, believes Mr. Ogden, as it insures coordination of various store groups, who are to help you with your plan.

"A unit quota is assumed with an approximate dollar volume set up," Mr. Ogden continued. "This gives a basis of working out a separate newspaper advertising schedule, which may have a better chance of being followed than if submitted regularly. Keep in mind the consistent competition for advertising space with other departments, usually wearing apparel around Easter time."

Nation-Wide Was the Representation of Stores at G-E's Clinic



(1) J. B. Ogden (left) of the J. L. Hudson Co., Detroit, greets D. W. Proffitt of Proffitt's, Maryville, Tenn. Both men addressed the Clinic. (2) "House furnishings are going to have a really big year," David Ovens (left) of the Ivey store, Charlotte, N. C., and former N.R.D.G.A. president, tells A. M. Sweeney, sales manager, G-E specialty appliance division.

Details of Promotion Plan

A typical outlined plan is as follows:

I. Location in the department.

II. Decorations to change the appearance: (1) post enclosures; (2) spot light on particular unit displays; (3) ceiling lighting fixture enclosures; (4) shadow boxes to call attention to certain models; (5) pyramid displays using up to 16 units of the same model in a mass display; (6) silver flittered refrigerator on turn-table under spot lights; (7) cut-a-way units of makes and cabinets; (8) meters showing current consumption, comparing a refrigerator with a Mazda lamp; (9) two, three, or four display windows.

III. Merchandise: Complete display of various lines.

IV. Salesmen: (1) quotas for period; (2) last year's figures for comparison; (3) contests with prizes; (4) charts showing standing; (5) sales meetings; (6) registering of prospects; (7) follow-up systems, etc.

Advertising

V. Advertising: similar methods are used to those mentioned under expositions, with the following additions:

(1) Invitations in the form of cards addressed by salesmen to all prospects, with a personal message; (2) outpost displays on other floors with proper background displays. These should be located in "head on" traffic points, particularly at the credit and cashier's offices; adjacent to public restaurants, employees' cafeteria, public rest rooms; (3) posters on employees' locker room bulletin board; (4) a different type price display card on top of the refrigerator, giving make, model, and price with specifications.

VI. Activity in the Home Service Bureau:

(1) In the home service bureau a series of lectures by factory representatives; (2) have operating and dress up a number of refrigerators of each make with salads and display material; (3) serve ice-cream from refrigerator to visitors as a means of holding traffic.

Lewis Says Stores Must Ask 'Cleanup' Of Dealer Tactics

Unless department stores demand of distributors that "chiseling" dealer selling practices be cleaned up, reduce the number of lines they handle, and do more outside selling, they are due to take a bad beating this year from the dealers in their area, Paul Lewis of Caswell, Inc., Detroit distributor, told the clinic.

"Department stores previous to 1933 depended on 'specials' and a lower carrying charge rate to get business."

"When FHA terms were made available, dealers old and new took advantage of the 5%, non-recourse paper, and cut into department store volume.

"As the department store's volume dropped off, it meant that its sales became a smaller percentage of the distributor's total volume, and so the distributor was forced to give 'specials' to some of his better dealers as well as to the department store."

With this condition, declared Mr. Lewis, the dealer is in a better position than ever to "chisel," because he can use the department store as a showroom.

Therefore, it is up to the department store, says Mr. Lewis, to see that everything is made even by seeing that dealers don't "chisel" on prices.

"By 'spreading' on the number of lines which it carries, a department store doesn't become particularly valuable to any one distributor, and it can ask no particular helps from any one distributor," said Mr. Lewis in advocating that stores cut down the number of lines they handle.

"Too many brands are hard to sell," Mr. Lewis continued, "because the salesman can't keep his story straight."

Mr. Lewis advocated that department stores put in a prospect file, keeping salesmen protected for five days. Experience has demonstrated that of cards filed for longer than 10 days, only 2% result in sales.

Low Cost MILK COOLING FOR THE DAIRY FARM

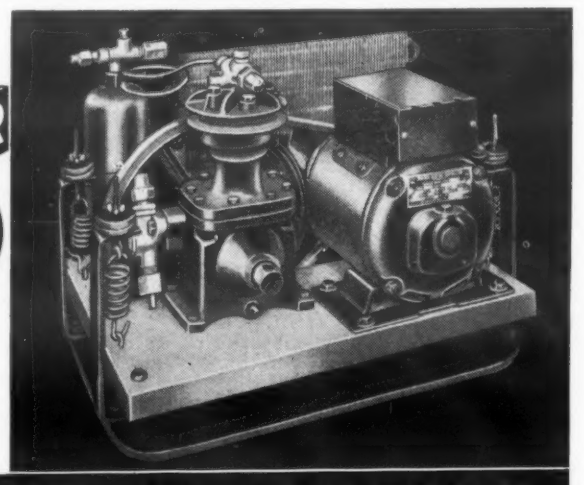
HUNDREDS of progressive dairy farmers rely on Copeland Commercial Units for operating milk coolers. These dairymen enjoy the advantages of faster, cheaper milk cooling with perfect temperature control, because of the great dependability built into Copeland Units. Milk producers operate on a narrow margin, which makes Copeland economy and performance an important factor in choosing equipment. If you sell commercial refrigeration, look into this superior line. A few territories are open. Write.

COPELAND REFRIGERATION CORPORATION
Manufacturers of a complete line of Household and Commercial Refrigeration
Holden Ave. at Lincoln . . . DETROIT, MICH.

Copeland DEPENDABLE Electric REFRIGERATION

M&E COMPRESSOR 120 MC.

Designed Especially for



WATER COOLING

COMPACT • STURDY • RELIABLE

● Has made an outstanding record of efficiency and economy in both bottle and pressure type coolers. Increased condenser surface. New type spring suspension. Only 17½" wide, 15" deep, 13½" high. Weight complete 70 lbs. . . . Discussion is invited with water companies and assemblers.

WRITE FOR COMPLETE CATALOG OF 1/6 TO 15 H. P. COMPLETE AND BARE COMPRESSORS

MERCHANT & EVANS CO., Manufacturers
OFFICES SHOWROOMS PHILADELPHIA, PA. Est. 1866 Plant LANCASTER, PA.

Appliance Department

Managers Sought Out Top G-E Sales Executives For First Hand Information on Sales Policies

"That was a lively session you had this morning," P. B. Zimmerman (holding papers), general sales manager of General Electric's specialty appliance division tells Ralph Cameron (standing), assistant sales manager of the division, and Herschel Lutes of the J. L. Hudson Co., Detroit, co-chairmen at the sessions. "How can we increase small appliance sales?" Thomas Pitkethly of Smith-Bridgman Co., Flint, Mich., asks Al Pierce, manager of department store sales, G-E merchandise division.

'Sell Salesmen on Electrical Living and They Will Sell America'—Zimmerman

"The future of the electrical industry is in the development of the home market," declared P. B. Zimmerman, general sales manager of the G-E specialty appliance division, in the final address of the clinic in which he summed up the ideas and plans inspired by the meeting.

"I hope that we have helped to make you 'believers' and 'specialists' in the new art of electrical living, that you will go home and make 'believers' of your salesmen, who will in turn sell the idea to homeowners."

Mr. Zimmerman pointed out that while General Electric had in its early history been interested chiefly in making equipment such as generating equipment that would increase the extent of electrical service, it was now looking ahead to new frontiers, and a great deal of study was being given to instruments of electrical service.

"We have found that it is necessary to inaugurate a new type of 'electrical merchandising' to the public if we are to put across this new idea of electrical living," he said.

"The electrical industry started off by selling items with a small unit price, such as light bulbs and ironers," Mr. Zimmerman continued. "This may account for the timidity and awe with which salesmen today view their chances of selling a $1,000 kitchen.

"Price isn't a barrier to a salesman who has confidence in his product, and the knowledge that the prospect wants it. Take a lesson from automobile salesmen. They're never embarrassed by the fact that they're selling an item that may represent a third or more of a man's yearly income. All they ask is that you take the car out on demonstration and that they be allowed to have your old car for appraisal—and then try and get your old car back again."

Operating utilities, said Mr. Zimmerman, have more or less come to realize that they can't be much of a factor in this new kind of electrical selling—there's too many items.

"Thus, distribution of such merchandise is going through new channels, of which department stores are one.

"The thought is percolating through America today that electricity is *cheap*, and you can take advantage of this thought," Mr. Zimmerman declared.

He explained how a Nebraska utility had plastered its offices and substations with the sign "Electricity is Cheap in Omaha" with the result that appliance sales jumped markedly.

Mr. Zimmerman also asked the department store men to give their whole-hearted support to the new Kitchen Modernization Bureau, pointing out that it offered several channels of publicity for putting across the story of modern electrical living.

"We are going to change the kitchens of America, and it's going to be a billion dollar change," said G-E's specialty appliance division's general sales manager.

It was also pointed out by Mr. Zimmerman that America was getting a new viewpoint on home building, that new architectural styles and interior decoration and equipment were again making America home conscious. In this connection he told what G-E was trying to do with its "New American Home."

It is now possible to have a new home, with all modern conveniences and furnishings, for the same price that an unfurnished home of a few years ago would cost, he said.

Terming the "Merchandise Clinic" a "school of experience to develop a pattern or formula that would be beneficial in merchandising electrical appliances," Mr. Zimmerman urged that the department store executives return to their stores to try and re-try the many selling ideas developed.

Dameron Tells Clinic Not to Sneer at Test Demands of Public

Dr. Kenneth Dameron, professor of merchandising at Ohio State university, and well known for his book on appliance merchandising trends, declared that there are three problems facing appliance retailers today, and named them as follows:

1. Consumer movements. Encouraged by the government, womens' groups, and others, these are not to be sneered at. If the Townsend plan can gain the following that it has, certainly the consumer movement can become alarming.

Householders are becoming interested in "tests" of merchandise. A big problem in this respect is the question of who should conduct such tests. Consumers are also curious as to why salesmen can't give better answers on the product, terms of payment, etc.

2. Rigidity of prices and credit policies. These are a barrier to reaching the mass market.

3. Merchandising. There is too much "last minute" planning instead of real programs. The electrical appliance is a "natural" for long range sales planning, but little advantage has been taken of this opportunity.

Model Stores Help Present New Crosley Line

SPOKANE, Wash.—Show windows on a "street" lined with Crosley dealerships served to introduce the 1936 line of refrigerators, radios, and laundry equipment to the 225 dealers who attended the three-day meeting held here recently by Marshall Wells Co., Crosley distributor.

As dealers walked down the "street," located on the third floor of the Marshall Wells building, they passed eight stores with window displays and merchandise inside.

R. J. Murray of Honesdale, Pa. Tells How Small Town General Store Does a Big Appliance Business

Many of those attending the clinic paid tribute to the talk of R. J. Murray, the Murray Store, Honesdale, Pa., as possibly the most interesting presented at the clinic. Mr. Murray outlined the experiences of a small town general store in the selling of electrical appliances.

Honesdale is a town of 7,000 population and is the county seat of Wayne County, which has a population of 26,000 people. Dairy products is the principal industry, although there are two or three good manufacturing plants about, and resort trade in the summer. The town banks have $10,000,000 in savings accounts.

Sell Few People Lots of Goods

"Our problem," said Mr. Murray, "is to sell a few people a lot of merchandise. We have three stores, and have located them so that we can operate on a small-town expense, and so that they will catch big-town business. (Mr. Murray indicated that he made inroads on some business of larger towns nearby.)

"We have half a dozen traveling men, and also sell by means of a catalog.

"Last year we sold 75 electric refrigerators and milk coolers, 9 winter air-conditioning systems, 10 ranges, and 200 electric motors.

"The utility is the biggest single factor in local competition. They'll spend four times as much as we do to make a sale, and I have a feeling that some of that selling cost is reflected in my light bill.

"Much of our competition is 'between towns.' Easy transportation makes it possible for the farmer to go many miles to get what he wants, and he's pretty sure to go to the town that can serve him the best, and where he gets the best treatment.

Must Be Sold on Town

"For example, one of our stores wasn't doing so well, so we made a survey of some 200 farmers in the vicinity, which showed that they wouldn't go to the town in which the store was located because it didn't have a nice dress shop in which the farmers' wives could shop."

One maxim that store owners should observe is "don't let the business get old because you do," says Mr. Murray. Old men are inclined to let their thinking get stale, he said, and should therefore hire young men to keep their thinking alive.

"We went into a mail-order catalog to meet competition from the big mail-order houses. The catalog increased our business 25%.

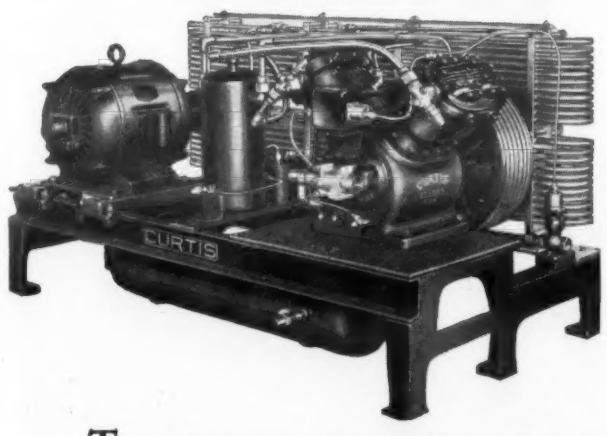
Keep Same Space in Newspaper

"We advertise in a paper which is issued three times weekly. We have a contract which gives us the same space in each issue, and we run our ads as sort of a 'newspaper within a newspaper.'

"In that space, we talk about our customers, what they bought and what they're doing. Births, deaths, and marriages are reported.

"Our best stunt is probably our annual party for our customers, in which we bring them in and entertain them. Wives of the six Murrays serve the food and fraternize with the customers' wives, and this is one of the best business builders we know."

ONLY **CURTIS** CAN GIVE YOU



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These features insure highest efficiency, low operating cost and long life.

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ADDRESS .....
E.R.N.

Sign attach to your letterhead and Mail

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3. "AIRLATOR" Drip-Pan Coils
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6. Sheet Coils
7. Commercial Ice Cube Makers
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10. Domestic Ice Cube Makers

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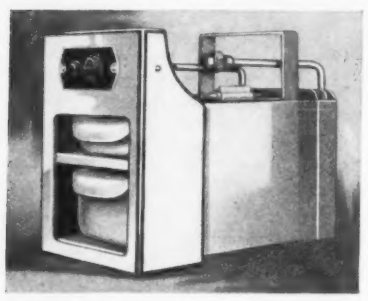
The Buyer's Guide

Suppliers Specializing in Service to the Refrigeration and Air Conditioning Industries

The NEW "HUMIDIPACK" EVAPORATOR by PEERLESS



A "1936" line of Household Evaporators with "1936" sales points.

1. High Box Humidity
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3. Clean design—Smooth exterior
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5. "Humidi-pack" is the Power-Pack of Refrigeration

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You control your own re-sale prices, selling methods and profits with Dayton. Write for Money-making facts on line and policies.

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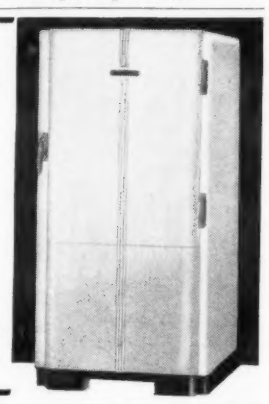

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Built to last, to give efficient, trouble-free service for years, to do your every heating or cooling job perfectly.

Also any type of extended surface coils made with Aluminum, Copper and Steel Fins on Copper and Steel Tubing . . . Expansion Valves . . . Pipe Bends and coils.

New Catalogue now in production . . . watch for it.

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WE MANUFACTURE DISTINCTIVE FOUR AND SIX CU. FT. MODELS
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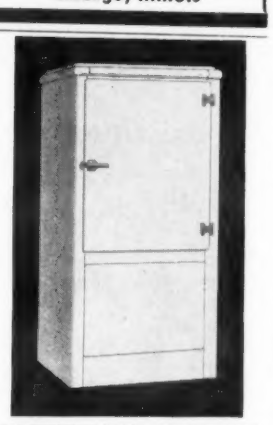

3600 Line of Display Cases—

These cases afford more square feet of display space than many other cases considerably larger. Two sizes are available—14 and 19¼ square feet of display—and you have your choice of Porcelain or DuLux finish.

Among the features are extra large rubber composition sliding doors; extra height doors for storage department; full view of illuminated display section; removable intermediate shelf, and 3" approved insulation.

For real convenience, economy, room and accessibility these cases cannot be equaled. Sold only through Dealers and Jobbers.

Write for complete catalog information

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KOCH
Believes In
CORKBOARD
The Insulation of every Koch fixture is installed thickly and thoroughly. Display cases, for example, have 4-in. thick corkboard insulation. The result is lower operating costs and diminished machine capacity required for refrigeration.
KOCH ESTABLISHED 1883
DISTRIBUTORS WANTED
Write for catalog and sales proposition. Submit references. Some attractive territories still open.
KOCH
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TYLER'S NEW WELDED STEEL REFRIGERATOR CASES

At last a general purpose case at a sensible price. Offers every advantage of the most costly cases at tremendous savings. Modern in every detail. Comes equipped with coils. Single and double duty models.

AN AMAZING VALUE

Hundreds in use. Perfect refrigeration for meat, dairy and delicatessen products and all perishables sold in food stores. Write or wire for all the facts.

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3 INCH INSULATION—TRIPLE GLASS

Einstein Traces Stores' Progress in Specialty Selling and Shows Need for Cooperation

Manufacturers must take heed of the need for increased margins and must be willing to do their part in helping some of the peculiar problems which department stores face if the department store is to progress as a factor in major appliance merchandising, declared Samuel Einstein of G. Fox & Co., Inc., Hartford, Conn., in speaking before the opening session of the Merchandise Clinic.

"Merchandising as applied to major appliances in department stores is a term conveying a totally different operation than is generally associated with merchandising in its generally accepted sense," Mr. Einstein began.

"Here we find few of the complexities present in the usual merchandising operation. The job is reduced to the most simple elements of merchandising—limited lines restricted to nationally advertised brands, simplified assortments—few sizes, no color or style problem, and fixed resale prices.

Close Cooperation Necessary

"In the performance of this task, it is necessary that there be closer understanding and active cooperation between the three prime interests concerned in the operation of a major appliance department: namely, the retailer, manufacturer and that of the local utility.

"The active entry into major appliances by department stores was induced by the depression. Apart from the fact that the industry was but of recent development, having made rapid strides in the few years just prior to the upset of our national economy, its established policies and form of organization greatly retarded its penetration into department stores.

Conflict with Protected Dealers

"Its territorially protected dealer set-up, operated on a low margin basis, subsidized by manufacturers; fixed prices for the duration of models, and the engaging in outside selling activities were in conflict with department store policies and practices.

"With the department store existed an apathy towards products involving the elements of service, installation, and long-term credits.

"When to these conditions is added the type of utility selling prevailing in many communities in those years, we have brought to mind a combination of circumstances serving as a powerful deterrent towards the establishment of amicable relations between all concerned.

Entrance into Dept. Store Field

"Rapidly falling sales volume of department stores in 1931 and 1932 brought about an open mindedness for new items as a means of counteracting the mounting losses in old established and profitable lines. At the same time, manufacturers, confronted with the insecurity and breakdown of their independent dealers' set-up, began to take cognizance of department store's stability and of its promotional facilities and faculties.

"Manufacturers of refrigeration particularly became aware that wider markets had to be created for the approaching period of mass distribution. And so entrance into the department store was a logical event.

"From the very outset, it became apparent that considerable adjustment was required on the part of both organizations, the manufacturer and the department store, if any sort of successful job was to be accomplished.

Problems Encountered by Stores

The store's reticence at the outset to assume the delivery, service, and installation phases associated with this business was a sort spot.

"Soon the store ran into the unhappy situation of sales to its customers in its trading territory, but outside of its city limits. Here the department store encountered the ramification of the manufacturers' independent dealer set-up. Such sales either had to be transferred to an established dealer in that community or else consummated on a partial margin basis, insufficient to compensate the store for expenses incurred."

The period of adjustment, Mr. Einstein pointed out, was made difficult because of the apparently cumbersome set-up of manufacturers' organizations. To the department store it seemed that coordination was lacking in these large organizations; final decisions on matters of policy were difficult to obtain.

Stores Were Obstinate

"In fairness to manufacturers," said Mr. Einstein, "it should be recalled that the state of mind within department stores wasn't particularly conducive to compromising the issue at stake.

"Stores did not look with favor on outside selling, a condition manufacturers insisted was requisite to an effective operation. Nor did stores yield too readily on extending credits over periods then customary in the appliance business.

"The store's failure to undertake the installation and service responsibilities emphasized the strength of the appliance dealer set-up to the manufacturer. The dealer conformed to all the practices regarded essential to the specialty business and the manufacturer was hesitant about making any deviations that would alienate the dealer."

In general it may be stated that the merchandising of major appliances in the majority of department stores now follows a well-established pattern, declared Mr. Einstein. It is regarded as fundamental, he said, that to do this job successfully, the department must be operated along specialty lines, contemplating the organization of a well-disciplined, aggressive, outside sales force. Also that the store's deferred credit policy must be flexible and compatible with practices in the appliance field. Stores, to do the best job, must be in this business wholeheartedly, assuming the stock risks as well as the delivery service and installation responsibilities.

Local Conditions Govern Operation

"There are numerous other phases of merchandising upon which such general agreement does not exist," said the speaker. "We find some stores confining their sales efforts to single lines, others to variety of department.

"Our preference under the proper conditions would be for a single line and yet our refrigeration set-up is comprised of two national lines. The type of operation depends chiefly upon local conditions.

"In this state of affairs it is probably more timely to turn our considerations to certain basic principles which must prevail in the industry if the department store is to reshape its policies and practices in preparation for the really dominant force it is destined to become in the distribution of load building appliances.

Adequate Margin Needed

"It is in the manner with which it fosters and maintains mutual cooperation with manufacturers and utility that will be the test of its success in this business.

"Of prime importance in the establishment of a sound base for a cooperative program between manufacturer and department store is that the merchandise margin between the cost of merchandise and the manufacturers' resale price be adequate to cover the cost of doing business plus a fair profit.

"Thus far the operation of appliance departments from a national standpoint has not been productive of profits to department stores.

"While the margin trend has been upwards, experience reveals new factors constantly creeping into the picture, increasing the expense burden and rendering the situation difficult of earning a profit. For example, a factor of little import at the present, but which is growing rapidly and will have to be reckoned with in the establishment of future resale prices, is that of the Trade-in.

"Progressively the major appliance market becomes one of replacements. Consequently in every such deal, the used appliance will enter into the sale price. Unless ample provision is made for this factor in manufacturers' resale prices, the profit possibilities will be further curtailed."

Manufacturers must be aware of department store costs and set resale prices accordingly, believes Mr. Einstein.

Expense Accounting Setup

"Unfortunately in the last several years we have been hearing pleas from within the retail craft for a change in our expense accounting setup," he explained. "The electrical appliance departments have been promised a more favorable profit performance thereby.

"A more confusing or misleading situation is inconceivable and it is hoped that manufacturers of major appliances will not be influenced too seriously by it when analyzing retail operations with relation to establishing resale prices."

Mr. Einstein thinks that no matter on what basis indirect expenses be distributed, provided the method employed is equitable, the expense ratio in major appliance departments would remain about what it is now.

"When it is considered that 80% of the total expenses in major appliance departments are direct expenses, how is it conceivable that a change of method in distributing the remaining 20% can have any appreciable effect on the final profit result?" he asked.

Dealer Setup Still a Problem

"One phase of department store-manufacturer relations that is ever a source of contention is the protected dealer set-up, still very much a part of the manufacturers' distributing program," Mr. Einstein charged.

"The department store operation in the appliance field is dissimilar in many respects from that of the appliance dealer. Manufacturers must soon face that situation squarely and establish the differentials necessary to avoid the conflict created by the present organization.

"One condition that most frequently causes friction is the selling by department stores in protected dealer territories.

"Manufacturers must recognize that a department store's trading area is considerably beyond its city limits and consequently will make sales in protected dealer territories. It cannot tell its regular patrons that they purchase electric refrigerators from their local dealers.

Out-of-Town Sales Unprofitable

"And yet, considering the diminished margin permitted department stores in such cases, out-of-town sales are made highly unprofitable. And experience reveals that override margins on inter-territorial sales are always of one kind—the department store doing the paying."

Entry of the department store into major appliances has created new situations requiring a different viewpoint which must result in manufacturers reshaping their policies, Mr. Einstein said in summing up his views on this particular situation.

"A consequence of the manufacturer-dealer attachment," he continued, "has been the lack of progress department stores have made with top-ranking manufacturers in the matter of obtaining promotional numbers for the appliance department so that it too might participate in the one or several major sales events the store may conduct during the year.

"Top-ranking manufacturers of the electric refrigeration in the last several years have yielded a very

(Concluded on Page 15, Column 1)

'Now in Our Store'-- Department Store Men Swap Experiences Between Sessions

R. J. Murray of the Murray store, Honesdale, Pa., and Samuel Einstein, G. Fox Co., Hartford, Conn., were speakers at the clinic. Maurice Webb (center) of Strawbridge & Clothier, Philadelphia, looks over a 1936 G-E with E. M. Krieger and M. F. Tucker of Hochschild Kohn Co., Baltimore.

Einstein Tells How Utility Cooperation Can Increase Sales

(*Concluded from Page 14, Column 5*)

substantial volume to their lower-ranking competitors, because of this rigid policy. And to this neglect may be attributed much of the reason for the duplication of lines seen on the floors of so many department stores.

"This phase of department store co-operation warrants more serious study than apparently it has received before. The issue does not seem clearly understood. Maintenance of price is not at stake. Department stores do not desire to have the established price structure disturbed any more than does the manufacturer.

"Safeguarded by necessary restrictions, such as frequency of sales, agreement on price and the scheduling of events sufficiently in advance, so that the manufacturers' production requirements might be synchronized with retailers' demands, it does seem that manufacturers could produce this much sought 'special' to be used exclusively by department stores for the duration of the one or two events a year."

In Mr. Einstein's opinion, the utilities can be of immense aid to themselves and greatly stimulate the output of load-building devices by recognizing the potentialities of department stores in the merchandising of major appliances.

"The expansion of the department store into this field of course will not reach its fullest development until the utilities suspend their merchandising activities.

Urges Utilities to Quit Selling

"Utilities that have taken the progressive step in abandoning merchandising operations have met with better than average success.

"The shining example in the utility field of broad-minded cooperation is that of our own city, The Hartford Electric Light Co.

"The electric range story of the Hartford Electric Light Co. is now well-known. Probably of even greater significance to you might be the knowledge that the year of 1928 saw the peak of this company's merchandise sales. In that year, the average kilowatt hours per domestic customer was 478. The company gradually withdrew from merchandising activities.

"During the year of 1933, when the company was wholly out of the appliance business, the average kilowatt hours per domestic customer was 793 —an increase of 66%. In 1935, three years following the complete withdrawal from the appliance business, the average kilowatt hours rose to 973 —an increase greater than 100% over 1928.

What Utilities Could Do

Liberated from merchandising, the local utility would assume newer and broader responsibilities, believes Mr. Einstein. As examples:

(1) It could undertake the organization of local distributors into an aggressive specialty selling group, distributing to stores cooperating its specialty salesmen as nuclei for the store's development of an outside selling force.

(2) It could develop cooperative selling campaigns participating in costs.

(3) It could coordinate the appliance activities of distributors and serve as a steering committee through the creation of specialty councils, such as a "refrigeration council" or a "cookery council."

(4) It could render immeasurable aid to retailers through service as a testing bureau for electrical appliances. Dealers could refer new lines of merchandise for testing and approval by the utility.

(5) Through expanding its research facilities into a sort of central reporting bureau, it could exert a most stimulating influence in the interests of a broader appliance distribution. To this bureau, retailers could report their individual appliance sales as well as total sales, from which data could be compiled for distribution to contributing retailers, their proportion of business for any period in comparsion with other periods.

(6) For major appliance sales an individual card record might be kept from which much valuable data could be extracted for dealers' use. A theoretic replacement schedule might be developed and each card marked accordingly. At the end of such periods, a list showing customer's name and description of article could be sent to retailer originally making the sale for follow-up. Or such lists might be distributed to dealers in direct proportion to business contribution.

(7) The maintenance of such a research bureau might make available to retailers addresses of homes reflecting low current consumption as prospects for purchases of major appliances.

Department Store Men Who Attended Clinic

J. G. Aldidge, D. H. Holmes Co., Ltd., New Orleans, La.; L. G. Andrews, Strawbridge & Clothier, Philadelphia, Pa.; E. J. Arnfeld, Gimbel Bros., Pittsburgh, Pa.; F. H. Ashby, W. M. Whitney & Co., Albany, N. Y.

E. E. Baily, Herpolsheimer Co., Grand Rapids, Mich.; C. J. Ballus, Electrical Housekeeping, Inc., Akron, Ohio; E. D. Bean, John G. Myers Co., Albany, N. Y.; A. C. Bechler, R. H. Muir, Inc., E. Orange, N. J.; A. C. Berg, Gimbel Bros., Pittsburgh, Pa.

Sidney Berg, Let Brothers, Philadelphia, Pa.; E. R. Berkeley, Hecht Co., Washington, D. C.; P. W. Blew, The Fair, Chicago, Ill.; R. J. Bond, Allied Purchasing Corp., Chicago, Ill.

F. R. Brachhold, Kresge Department Store, Newark, N. J.; R. U. Brett, Timothy Smith Co., Roxbury, Mass.; W. Brown, C. F. Hovey Co., Boston, Mass.; G. J. Buchauer, J. N. Adam & Co., Buffalo, N. Y.; J. H. Bunn, Davis Store, Chicago, Ill.

A. Chaffer, General Electric Co., Pittsburgh, Pa.; M. S. Chapman, Hahne & Co., Newark, N. J.; H. T. Coe, The Davis Store, Chicago, Ill.

K. Dameron, Ohio State University, Columbus, Ohio; R. M. Davis, General Electric Supply Corp., Pittsburgh, Pa.; W. W. Dodge, John G. Myers Co., Albany, N. Y.

D. L. Edelmuth, Associated Merchandising Corp., New York, N. Y.; S. Einstein, G. Fox & Co., Hartford, Conn.; D. H. Eldredge, George Wyman & Co., South Bend, Ind; V. C. Ericson, Adam, Meldrum & Anderson Co., Buffalo, N. Y.; R. S. Erlandson, Rudolph Wurlitzer Co., Cincinnati, Ohio.

J. L. Fahey, Keystone Appliances, Inc., Harrisburg, Pa.; Mrs. J. R. Farrell, Wm. H. Block Co., Indianapolis, Ind.; Abe Fishgall, Meyer Brothers, Paterson, N. J.; Earl Fletcher, H. Friedlander & Co., Wooster, Ohio; Jas. A. Foukal, Sterling & Welch Co., Cleveland, Ohio.

Martin Franklin, Boutell's, Minneapolis, Minn.; A. E. Freshman, A. Wayne Merriam Co., Schenectady, N. Y.; H. Friedlander, H. Friedlander & Co., Wooster, Ohio; H. T. Geraci, Reliable Stores Corp., Washington, D. C.; S. Gertz, B. Gertz, Inc., Jamaica, N. Y.; David Ovens, J. B. Ivey Co., Charlotte, N. C.; Lew Hahn, Syndicate-Alliance Trading Co., New York, N. Y.; Philip Salisbury, Editor, "Sales Management," New York, N. Y.; Dr. C. A. Eaton, Congressman for New Jersey; R. J. Goerke, Jr., Goerke & Sons, Newark, N. J.; A. G. Goldberg, C. F. Hovey Co., Boston, Mass.

M. E. Haas, Rex Cole, Inc., New York, N. Y.; F. J. Hable, Schuneman's & Mannheimer's, St. Paul, Minn.; W. H. Hager, Hager & Bros., Inc., Lancaster, Pa.; H. M. Hansen, J. N. Adam Co., Buffalo, N. Y.; C. L. Harris, New England Furniture Co., Minneapolis, Minn.; A. F. Head, Electrical Housekeeping, Inc., Cleveland, Ohio; Julius Hertzberg, S. Kann Sons Co., Washington, D. C.

J. H. Hisen, L. L. Stearns & Sons, Williamsport, Pa.; C. L. Hobbs, R. Cooper, Jr. Inc., Chicago, Ill.; J. K. Holley, J. Bacon & Sons, Louisville, Ky.; Paul Hollister, R. H. Macy & Co., Inc., New York, N. Y.; R. Howes, Higbee Co., Cleveland, Ohio; W. R. Hume, Woodward & Lothrop, Washington, D. C.; W. F. Huston, W. L. Stensgaard & Associates, Chicago, Ill.

C. E. Ingraham, Electrical Housekeeping, Inc., Cleveland, Ohio; V. O. Ives, Woodward & Lothrop, Washington, D. C.; J. J. Jacobsen, Stewart & Co., Baltimore, Md.; R. E. Jarvis, Tansburgh's, Washington, D. C.; W. P. Jennings, Mammoth Department Store, Shawnee, Okla.

Robert Johns, Higbee Co., Cleveland, Ohio; H. P. Jones, Havens Electric Co., Albany, N. Y.; H. T. Jordan, Associated Dry Goods Corp., New York, N. Y.; R. A. Jarnagin, S. H. George & Sons, Knoxville, Tenn.

R. E. Kaiser, Thompson-Sterling Co., Louisville, Ky.; M. Kenworthey, Pomeroy's, Inc., Harrisburg, Pa.; H. King, King's, Inc., Johnson City, Tenn.; M. M. King, H. P. King Co., Bristol, Tenn.; E. M. Krieger, Hochschild Kohn Co., Baltimore, Md.; J. F. Kromer, Larkin Co., Inc., Buffalo, N. Y.; H. S. Kummer, Adam, Meldrum & Anderson Co., Buffalo, N. Y.

J. H. Lumson, Sawyer's, Worcester, Mass.; T. Levite, Rosenbaum Co., Pittsburgh, Pa.; P. L. Lewis, Jr., S. C. Caswell, Detroit, Mich.; R. J. Lewis, G. E. Supply Corp., Cleveland, Ohio.

C. F. Longacre, L. L. Stearns & Sons, Williamsport, Pa.; D. G. Loomis, Quackenbush Co., Troy, N. Y.; H. Lutes, J. L. Hudson Co., Detroit, Mich.

T P. Magee, Ed. Schuster & Co., Milwaukee, Wis.; S. Marks, Palais Royal, Washington, D. C.; R. W. McCarthy, Sibley, Lindsay & Curr Co., Rochester, N. Y.; J. E. McConnaughy, Joseph Horne Co., Pittsburgh, Pa.; Nelson McIntyre, Smith-Bridgman Co., Flint, Mich.

L. Meagher, Langdon & Hughes Electric Co., Syracuse, N. Y.; F. Mekeel, Goerke & Sons, Newark, N. J.; R. J. Murray, Murray Co., Honesdale, Pa.; H. Natelson, C. F. Hovey Co., Boston, Mass.; O. W. Nelson, P. H. Harrison Co., Newark, N. J.; C. G Nichols, M. O'Neil Co., Akron, Ohio; J. E. North, Cleveland Elec. Illum. Co., Cleveland, Ohio.

J. B. Ogden, J. L. Hudson Co., Detroit, Mich.; Harold Olson, Schuneman's & Mannheimer's, St. Paul, Minn.; R. C. Partington, Abraham-Straus, Brooklyn, N. Y.; A. M. Pickett, National Electric Supply Co., Washington, D. C.; A. E. Pierce, General Electric Co., Bridgeport, Conn.; T. Pitkethly, Smith-Bridgman Co., Flint, Mich.; D. W. Proffitt, Proffiitt's, Maryville, Tenn.; B. Propert, General Electric Co., Philadelphia, Pa.

J. A. Ramsey, General Electric Co., Buffalo, N. Y.; F. M. Rauch, Bry-Block Mercantile Corp., Memphis, Tenn.; F. A. Ray, General Electric Co., Cleveland, Ohio; A. S. Reed, General Electric Co., New York, N. Y.; J. C. Reynolds, Palais Royal, Washington, D. C.; E. L. Rice, A. Polsky Co., Akron, Ohio; P. Richards, Strawbridge & Clothier, Philadelphia, Pa.; R. K. Robinson, J. Bacon & Sons, Louisville, Ky.; S. Rosenberg, Associated Dry Goods Corp., New York, N. Y.; W. W. Roski, Wilkes-Barre, Pa., Dry Goods Co., Wilkes-Barre, Pa.

G. E. Salisbury, Adam, Meldrum & Anderson Co., Buffalo, N. Y.; W. Salkeld, Carson, Pirie Scott & Co., Chicago, Ill.; A. E. Sanow, Wieboldt Stores, Inc., Chicago, Ill.; A. Schlote, Hecht's Reliable Stores, Baltimore, Md.; L. A. Schnake, Frank W. Wolf, Inc., Buffalo, N. Y.; Karl R. Schuele, Fries & Schuele Co., Cleveland, Ohio; R. A. Shackleford, General Electric Co., Cleveland, Ohio.

M. E. Shanaberger, Keystone Appliances, Inc., Harrisburg, Pa.; L. H. Simmonds, General Electric Co., Cleveland, Ohio; F. M. Slasor, General Electric Co., Detroit, Mich.; Harry T. Smith, Electrical Housekeeping, Inc., Cleveland, Ohio; W. P. Smith, General Electric Co., Philadelphia, Pa.; C W. Spiess, Wm. H. Block Co., Indianapolis, Ind.; F. W. Stageman, Union Outfitting Co., Omaha, Neb.; J. S. Strecker, General Electric Co., Chicago, Ill.

J. L. Taylor, Cleveland Elec. Illum. Co., Cleveland, Ohio; L. B. Tedesco, McCreery & Co., Pittsburgh, Pa.; R. S. Terry, J. R. Millner Co., Lynchburg, Va.; C. H. Trueman, A. Polsky, Co., Akron, Ohio; M. F. Tucker, Hochschild, Kohn & Co., Baltimore, Md.; R. W. Turnbull, General Electric Co., Bridgeport, Conn.; E. E. Upp, C. H. Yeager Co., Akron, Ohio.

J. E. Van Camp, Dayton Co., Minneapolis, Minn.; W. VanLare, Ed. Schuster Co., Milwaukee, Wis.; E. H. Vogel, General Electric Co., Bridgeport, Conn.

J. M. Walker, General Electric Co., New York, N. Y.; G. Warner, C. H. Yeager Co., Akron, Ohio; Maurice Webb, Strawbridge & Clothier, Philadelphia, Pa.; R. Weill, Denver Dry Goods Co., Denver, Colo.; C. E. Weitzel, Maryland Appliances, Inc., Baltimore, Md.; D. B. White, G. E. Supply Corp., Buffalo, N. Y.; F. S. Whiting. American Furniture Mart, Chicago, Ill.

R. H. Willis, O'Neill & Co., Baltimore, Md.; C. L. Witzeman, Wm. Taylor Son & Co., Cleveland, Ohio; H. Witzman, Castner-Knott Co., Nashville, Tenn.; W. B. Wolff, M. O'Neil Co., Akron, Ohio; S. L. Wright, Higbee Co., Cleveland, Ohio; D. N. Wyre, Jones Store Co., Kansas City, Mo.

Ailen Zale, New York, N. Y.

Real Salesmen Needed in Appliance Dept., Ovens Tells G-E Merchandise Clinic

"How does the salesman in your store compare with the product in appearance and performance," asked David Ovens of the Ivey Store, Charlotte, N. C., and a past national president of the National Retail Dry Goods Association, in addressing the clinic.

"How many of your salesmen are merely price-quoters who are unable to tell the real story of the product," he continued.

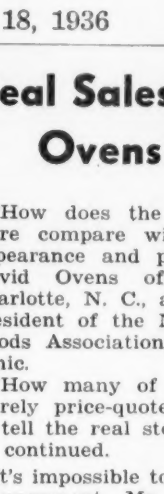
It's impossible to divorce selling and management, Mr. Ovens said. Management must determine the character of a store—its reputation, and the way it does business.

"Too often a department store will put 'just a salesman' in charge of its appliance department," declared Mr. Ovens. "A manager must be more than just a salesman—he must always be thinking ahead, keeping up promotional activities, and training salesmen to be better salesmen.

Mr. Ovens urged that department store appliance salesmen put more "dramatic appeal" in their selling.

Appliance departments, to be conducive to sales, must have a modern atmosphere and background, and must be kept clean, explained Mr. Ovens. It should also be a place where it is plain to be seen that merchandise is bought and sold—not a place that "freezes out" the prospective customer.

With a great housing movement now getting under way, Mr. Ovens predicted that housewares departments will show the best increases in sales for department stores this year. He declared that "the modern kitchen" will take precedence in the bride's planning over her trousseau.



MAXIMUM RESISTANCE TO STRUCTURAL BREAKDOWN—ALSO

MANHATTAN V-BELTS

Long Service . . . Minimum Inelastic Stretch . . . High Resistance to Side Wear . . . Uniform Flexibility . . . . . Wide Margin of Strength . . . Maximum Traction.

Internal heat eliminated by making impossible the chafing which generates heat. Rubber insulates each component part—holding together and cushioning each cord in the whipcord strength member, which is placed in the neutral axis area. Result—longer life . . . minimum stretch . . . noise eliminated. One trial and you'll always specify Manhattan.

THE MANHATTAN RUBBER MFG. DIVISION
of Raybestos-Manhattan, Inc.
45 Townsend Street Passaic, N. J.

ADDED to "This Much More in a Shelvador" is a new styling that gives it outstanding smartness. Bonderizing protects that smart appearance and makes it lasting. Bonderizing protects the finish against rust, chipping and peeling. It is a much appreciated feature that dealers can well afford to feature as a talking point.

PARKER RUST-PROOF COMPANY
2197 East Milwaukee Avenue • Detroit, Michigan

A new book showing what a refrigeration salesman should know about Bonderizing, will be furnished upon request.

PARKER RUST-PROOFING processes
BONDERIZING • PARKERIZING

Interviews

By Robert P. Nixon

News of Los Angeles Jobbers, Distributors, And Manufacturers' Representatives

Business Good and Getting Better—R.S.D.

A division of the Starr Piano Co., Refrigeration Supplies Distributor does a jobbing business at 222 N. Vermont Ave.

Ray Strahan is manager. He travels for the company and is often out of the office to contact the trade. At such times Pete Askew and Frank Gillette take care of orders and over-the-counter business.

Mrs. J. Lazarus is treasurer, and prepares advertising copy for the firm as well.

Although the office has been established there only since the fall of '34, one of the local manufacturers of household units expressed the opinion that "R. S. D. probably gets as much of the business in this section as anybody."

Thus far the company has used a loose-leaf catalog; this spring they will have a more complete printed one, and expect to have new editions every six months from now on, according to Mr. Askew.

A branch office has been organized at Sacramento, in order to provide a faster service there. R. S. D. has other offices in Richmond, Ind., Columbus, O., and Birmingham, Ala., states Mr. Strahan.

Out-of-town business splits with local trade about 50-50, Mr. Askew said, and independents account for perhaps two-thirds of the sales volume, the remainder principally with distributors and dealers.

Commercial refrigeration supplies are the main spring of the business, but as yet air conditioning has not added much to their sales volume.

* * *

L. P. Roth Cites Advantages Of Service Shop

Back in 1927 Refrigeration Service Co., Inc. did an independent servicing business. Then, as now, L. P. Roth was manager. The business grew and with nobody else inclined to take on the jobbing of refrigeration parts and supplies, and to keep a substantial stock on hand locally, Mr. Roth opened a wholesale department in 1931.

He now operates from an attractive location at 3109 Beverly Blvd. The parts jobbing department has grown rapidly, says Mr. Roth. The service department, with six men regularly on the job, has tended more and more toward wholesale shop work for dealers and independent service organizations.

Now they are expanding, preparing for a busy season ahead. "About 1,000 square feet are being added to our present shop space," states Mr. Roth, "giving us a total area of around 6,000 square feet.

"We're adding many new items this year to make our service more complete, and with additional shop facilities we hope to provide even more rapid repair service for dealers and servicemen."

This wholesale shop work takes care of jobs which the average service outfit is not prepared to handle. According to Mr. Roth, the service department also has two other distinct advantages from the standpoint of serving the trade adequately and well:

First, the opportunity to try out new products and to determine their real worth before offering them to the trade. And second, the knowledge of just how each part is used, what it will do, and just how it should be serviced.

With this understanding of the place of each part in refrigeration repair work, says Mr. Roth, we can often help the independent worker in solving a problem which may have him stumped. As a "tester" he believes that the service shop in connection with the jobbing business is ideal.

"Over 80% of our business is wholesale," Mr. Roth comments, and the jobbing business has become the backbone of the organization.

H. A. Halls, of the jobbing department, explained the filing of their stock. In addition to the supply of parts and supplies, they are also interested in accessories; one of the counter displays includes a set of Scurlock Kontanerettes.

In the sales department he keeps an average of 6 to 8 men busy, and the distributor-dealer business compared with that from independents is on about a half-and-half basis.

Most of the business is out-of-town. Customers are scattered throughout the coast district and in the Southwest states. He travels no salesmen, depending rather on direct mail, and the regular issues of a house-organ, "The Liquid Line."

This mailing piece is in mimeographed form, usually four pages, illustrated with hand drawings, and on colored stock. News notes, special offers, new items and new lines, a few jokes, and discussions of company policy is the average content. It's a real business getter, and one of the first *MUST* items on the budget, says Mr. Roth. They mail about 1400 copies.

Their new catalog is now in preparation, and meanwhile "The Liquid Line" takes care of announcing new items. Among these are Perfection refrigeration parts and Victor gaskets.

Mr. Roth expects to find a very substantial demand for the MASTER SERVICE MANUAL among the trade they contact. He was somewhat disturbed that the complete volumes had not arrived.

* * *

'Air Conditioning Can and Will Be Sold in Calif.'

The Frank G. Slagel Co., located at 923 E. Third St., plans to move soon to new and much larger quarters. This company acts as manufacturers' representative for Fedders, Brunner, Ranco, Bohn Aluminum & Brass, Commonwealth Brass, United Wire & Supply, Capewell, and several other lines.

Business during '35 was good, and the prospects for this season seem to fully justify the company's new building. Here, according to Mr. Slagel, there will be sufficient room for substantially larger stocks, and a thoroughly convenient arrangement of office space.

Mr. Slagel promised to send us full details about his new location, and perhaps some pictures of customers or important visitors at the offices, just as soon as the move is completed.

The company handles business throughout the coast region and in the Southwest states. On the West Coast, explained Mr. Slagel, it is necessary to stock substantially large quantities in a number of lines, in order to avoid the delay of waiting for shipments from the East.

On the question of "can air conditioning be sold in California," Mr. Slagel doesn't let pride in the fine climate stint his optimism. "It can and will be sold" is his opinion, and he means in large quantities, too. The Slagel Co. is getting a good volume of air-conditioning business now, and very definitely plans on this business increasing.

Too many people confuse "air conditioning" with "cooling." And though California climate is great, there is still a very definite need for conditioning the air in homes and buildings, and a very definite place for air-conditioning sales in California, Mr. Slagel believes. Those who go after it will get it, and it is merely a matter of time and education. Furthermore, the Slagel Co. is going to continue doing its share of spreading the gospel.

* * *

Refrigeration Jobbing And Ship Supplies

Norman S. Wright & Co., manufacturers' representatives with main offices in San Francisco, now maintain a branch at 923 E. 3rd St., Los Angeles. Principal refrigeration line consists of Mueller Brass Co.'s products.

John M. Haas of the branch office reports business good during '35 with prospects of better business for this season. Commercial business has accounted for the bulk of refrigeration sales. Air-conditioning supplies also provide a good market, however, especially among the larger installations.

Most trade is centered around Los Angeles, where the Wright Co. also has a worthwhile trade in ship supplies. Orders also come from other points along the coast and from the Southwest states nearby, however.

According to Mr. Haas, they train the young men in their offices with a thorough course in ELECTRIC REFRIGERATION NEWS.

* * *

Los Angeles Branch For San Francisco Jobber

Refrigeration & Power Specialties, jobbing house—another company with main offices in San Francisco—established several months ago a Los Angeles office. Again like the Wright Co., it is located in the large warehouse building at 923 E. Third St.

As yet they haven't the full lines they would like, states Mr. Murphy, manager of the branch. "But we are rapidly developing toward this," he added. Export business has been a fair source of income, and an encouraging one. As to air conditioning, Mr. Murphy thinks southern California weather is too good for that to amount to a great deal.

* * *

Success Story at Kitchen Planning Dept.

Louis Bienvenu, district manager of The George Belsey Co., Ltd., 1001 S. Hope St., General Electric distributor, welcomer of Editor Taubeneck and of much assistance to us both, introduced the company's Kitchen Planning Department Director, Russell W. Johnson, and promised he would have an interesting story. He did.

Mr. Johnson began with the company about two years ago, and inaugurated the Kitchen Planning Department last June, with himself as its sole member. He now has seven men busy on the job full time and expects he will soon have to have more.

Kitchen Planning Department Builds Belsey Business

(1) Cooking demonstrator shows a prospect through the model kitchen at George Belsey Co., Los Angeles G-E distributor. (2) R. A. (Bob) Mangan, Belsey advertising manager. (3) Louis Bienvenu, district manager.

He had a dozen plans, carefully drawn in colors and cellophane wrapped, ready for delivery the following morning. These covered the complete kitchen layout, and ranged in price from around $500 to just about $4,000.

The most complete job they have handled thus far cost $3,500; this $4,000 kitchen is one for which they are bidding right now.

It's the easy way to sell, says Mr. Johnson. No questions about "How many cubic feet?" "What size compressor?" "Enamel or Dulux?" or any of a thousand other subjects.

First you've got to win the confidence of your prospect, and when that's done, and when she is sold on the plan for a new kitchen, it's just "Fix it up right along the lines we've talked about." That means *the whole kitchen.*

The whole sale doesn't go to the Belsey Co. Not at all. There are contractors, and painters, and other equipment dealers who aren't in this company's line at all—but these others get business from the deal, free for nothing and no commissions collectable.

Factually, here's the proposition of the Kitchen Planning Department.

They will plan a complete layout for a new kitchen for any interested prospect, even to including an addition to the house if necessary. They will quote an estimate price on the whole job. If the job turns out to cost more than estimated, the Belsey Co. stands the loss; if it turns out less, the customer pays only the actual cost. In other words, the company guarantees the price it quotes against any increase.

They plan with the housewife to suit her requirements and preferences, place all contracting work necessary in addition to the appliances they can furnish, and check the job to see that it is done right and that it is satisfactory to the customer.

But that's just mechanics. The real stuff in the plan is that the salesman does not sell on "points" about G-E, but rather he helps the housewife to plan a new, and beautiful, and complete kitchen. The typical older architect had thought of the dining room, the living room, the sun room, the bedroom, and bath—but the kitchen had been left out of the picture.

The salesman must, of course, be able to quote on complete contracting work quickly and accurately, for underbidding means a net loss to the company. Mr. Johnson claims that the department has had only two underbids and lost only small sums on these. Usually the bid is high, but by a surprisingly small amount. Experience in the work has developed accurate estimates.

And the experience of the department has begun to win it recognition as a kind of "information clearing house" where many housewives ask for advice on *where to buy.*

Prospects appreciate having the whole job taken care of for them, with no fuss with painters, remodelers, and contractors for the various individual jobs which go to make up a complete kitchen. And once they are sold on the new kitchen idea, selling an individual unit in order to fit expenses to the budget can't always be done. Mr. Johnson quoted one customer as follows:

"No, you can't get me to give up this plan and just buy one unit. I'll wait until I can afford the complete kitchen." Months later she came in and was ready for the whole thing, as previously planned. And was Mr. Johnson pleased!

The plan has produced better contracting work, too, states Mr. Johnson, for in addition to the housewife's okay, G-E must pass on the completed job. Contractors know that return business of this kind is well worth while, and are doing uniformly their best work.

Mr. Johnson further brought out the advantages of actively suggesting the plan (or "service") on the display room floor, and pointed to several examples in which prospects were both surprised to hear of the free planning service, and delighted to make use of it.

A complete kitchen with inexpensive equipment can be had for around $600, says Mr. Johnson.

The last feature of the work along this line which Mr. Johnson explained was the regular kitchen demonstration service. Women come in about a dozen at a time to see just how each operation is carried out, and of the Belsey Co.'s cooking demonstrator, Mr. Johnson concluded that she has "more converts than Aimee Semple McPherson."

* * *

Kelvinator Distributor Introduces '36 Line

During the week of February 24 to 29, Kelvinator Distributor Lisenwalter and Gaugh introduced the new 1936 line to 211 dealers in the vicinity of Los Angeles. The dealers were invited to the Biltmore Hotel where the meetings were held each day in groups of 15 to 75, so that there would be ample opportunity for discussion and explanation which a large single meeting would not allow.

In pointing to the opportunities in the replacement market, it was brought out that 240,000 units are now in use in southern California. According to the Kelvinator distributor, half of this number are up for replacement this year, if dealers go after this business aggressively.

In pushing the "Friends of Kelvinator" plan last fall, one dealer sold a gross of $18,000 during December alone, and one unit accepted for replacement was a 20-year-old model Kelvinator, No. 222, and which was still in regular use. Beverly Hills, it was further pointed out, is already 92% saturated, yet the replacement market makes it a worthwhile market for Kelvinator.

* * *

Bank Officials Outline FHA Activity in Madera

The only two banks in Madera, Calif., a town of 5,000 population, are the First National Bank and the Bank of America. These two gave a summary of the FHA activity in Madera which outlined the situation there pretty thoroughly.

F. P. Rich, assistant cashier of the First National, stated that his bank had made a total of 76 FHA loans for refrigerator purchases, about half of which included other merchandise as well as the refrigerator.

As of January 1 of this year there were only two delinquencies, and no repossessions. The loans varied from 12 to 36 payments, the 36-month pay accounting for well over 50% of the business. Interest amounted to 7½% gross, with a 5% flat rate. Unless a down payment is made on any unit, the bank will not accept a note except with the dealer's endorsement and recourse.

The Madera branch of the Bank of America has received about 350 applications for FHA loans, only 10 of which have had to be turned down. These 10 were rather evenly divided between the various dealers in town. No repossessions, and no delinquencies. Most paper has been handled under the 36-month pay plan. The FHA paper which the bank handles originates from dealers only.

One dealer in town has had a number of repossessions, but this paper was handled entirely through a local finance company.

If FHA is not continued, the bank will introduce a substitute plan of its own which will be very similar.

Los Angeles Servicemen Find These Two Parts Jobbers 'On the Job'

(1) The main counter at Refrigeration Supplies Distributors. Left to right: M. W. Adams and J. Davin, servicemen-customers; Frank Gillette, Ray Strahan, manager; W. Hilton, Pete Askew, and H. D. Thomas of Gates Rubber Co. (2) A serviceman orders supplies for a rush job at Refrigeration Service Co., Inc. (3) L. P. Roth, manager of Refrigeration Service, invites Editor George F. Taubeneck to come in and look around.

The Refrigeration Engineer's Manual

By S. L. Potts

Characteristics of Double Pipe & Vertical Shell & Tube Condensers

Chapter 6—Condensers (Continued)

Double pipe condensers construction. This type is constructed entirely of pipe (extra strong) for both water and gases. The usual construction is to place a 1¼-in. pipe inside a 2-in. pipe. The 1¼-in. pipe carries the cooling water and the 2-in. pipe carries the refrigerating gases.

Thus the gases are held in the annular space between the outside of the 1¼-in. pipe and the inside of the 2-in. pipe. The water is carried inside the 1¼-in. pipe and these are connected in series by return bends. The cold water enters the bottom coil and leaves the top after passing through each pipe in succession. The refrigerating gases enter the top pipe of the stand and pass through the inside of the 2-in. pipe and outside the 1¼-in. pipe.

This brings the gases into intimate contact with the cold surfaces of the 1¼-in. pipe and the cold surface of the 2-in. pipe which is cooled by the air (usually) surrounding it. Each stand may have from 6 to 16 pipes high and as many stands as required for the capacity of the plant.

The counter-flow principle is used in this condenser entirely which brings the coldest water into contact with the coldest gases and the hottest water into contact with the hottest gases so that the greatest difference of temperature is always present in all parts of the condenser. Thus the most uniform and continuous condensation in all parts of the condenser takes place with high efficiency and maximum capacity.

In Fig. 48 is shown a double pipe condenser built with 2-in. and 1¼-in. pipe. The hot gases enter the header at A through the shut-off valve B to the 2-in. pipe and passes down through each pipe in the stand until condensed. The liquid flows through the valve C to the liquid header at D and from there to the receiver. The cooling water enters at the bottom through valve E to the 1¼-in. pipe and leaves at top through valve F.

Advantages and disadvantages of double pipe condensers. The water is entirely enclosed in pipes so that no drip pan or water tight floor need be provided. The condenser may be placed in any location or in any position because water is the main cooling material. It can be arranged in vertical or horizontal stands and in batteries and all connected to headers the same as atmospheric types. It uses the counter-flow principle to the best advantage.

The great disadvantage of this type is the stuffing boxes used to make the gas pipes tight where the water pipes extend through. These joints are numerous and are always sources of trouble. The costs of these are high. This type condenser occupies a comparatively small amount of space and usually a space that is not valuable for other purposes. Leaks in this condenser are hard to find, especially when the leak is between the gas and the water pipe (1¼-in. pipe). It may exist a long time before the operator's suspicion is aroused. Dirty water used in condensing causes trouble in coating over the tube surfaces with slime and dirt, or in closing the passages in the pipe and the return bends. This reduces the efficiency of the condenser. If the return bends on the water pipes are made removable with union connections, it enables the water pipes to be cleaned readily but it also introduces more screwed connections to keep tight (water tight). Return bends should be removed frequently and pipes cleaned with wire brush or flue scraper.

Capacity of double pipe condenser. These condensers required from five sq. ft. to eight sq. ft. outside pipe surface per ton of refrigeration. Five sq. ft. in the bleeder type is a fair average for water at 70° F.

About 1¼ to 3 gallons of cooling water per minute per ton of refrigeration is required for this type. The amount depends on the temperature of the cooling water—50° F. for 1¼ gallons and 3 gallons for water at 80° F., with the final temperature of the water at 70° and 100° F. This type of condenser does not benefit by air cooling to any great extent. Many times it is placed in a hot room or in a room or space without any air circulation and therefore without air cooling.

Bleeders are attached to this type of condenser and increase the capacity and the efficiency.

Shell and tube condensers, vertical construction. This type is constructed with a shell and two heads or tube sheets. The tube sheets are welded into the ends of the shell. The tube sheets are bored for tubes that pass from one head to the other. The tubes are rolled into the heads. The shell stands on end.

At the top of the shell, is placed a water trough or water box usually welded to the top of the shell. The cooling water is pumped into this box and flows down through the tubes. The lower end of the shell is placed on a stand or support that raises it several feet. Directly below the shell is a sump or trough, and the tubes discharge into this trough. At the upper end of the tubes, a special fitting is arranged to allow a small amount of water to flow down each tube, just enough to keep the inside of the tube covered with a film of water but the tube is never full of water.

The refrigerating gases enter the shell about mid-way between the ends and comes in contact with the cold surface of the tubes which removes the heat and condenses the gases. The lower part of the shell is used as a receiver, the liquid lays there until rquired in the operation. The hot gases enter the middle of the shell and the liquid is taken off a few inches from the bottom.

Advantages and disadvantages of shell type. This type occupies the least floor space for a given capacity of any type. It can be used in batteries of two or more and can be placed inside or outside of the building. The water distribution is simple and efficient and only a small quantity is required. Dirty water may be used effectively. Cleaning may be done at any time, the dirt falls into the sump and is easily removed from there. Cleaning may be done without taking condenser out of service. It has no troublesome packing boxes or leaky joints as most joints are welded.

In Fig. 50 is shown a vertical shell and tube condenser. The hot gases enter the shell at A and the condensed liquid is drawn off at B. The cooling water is pumped up into the water box at C, and flows down through each pipe at D. The water flow is limited by the distributor which is placed in the upper end of each tube in the water box. The distributor allows only a small amount of water to pass down the tube, just enough to keep the inside of the tube wet. Many different types of distributors are made. Object in each case is to regulate water to the least possible amount and to give water a whirling motion as it passes down the tube.

(To Be Continued Next Week)

Welded Construction

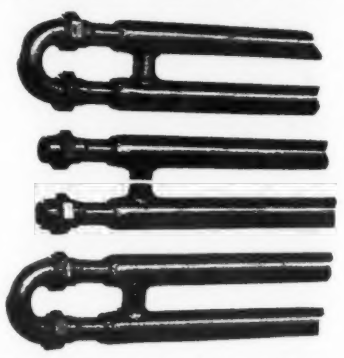


Fig. 49—Double pipe condenser with outer pipes welded.

Shell & Tube Type

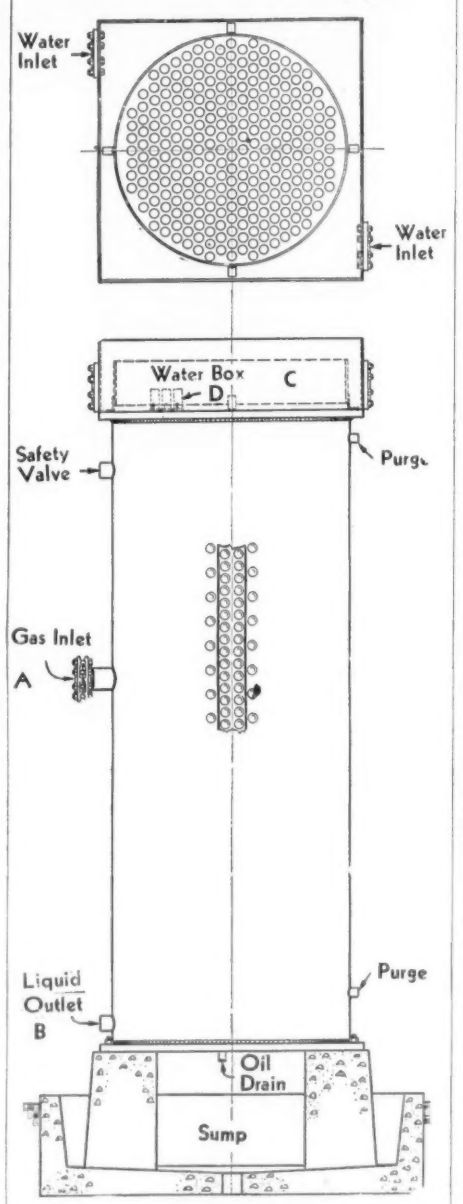


Fig. 50—Vertical shell and tube condenser.

Double Pipe Condenser

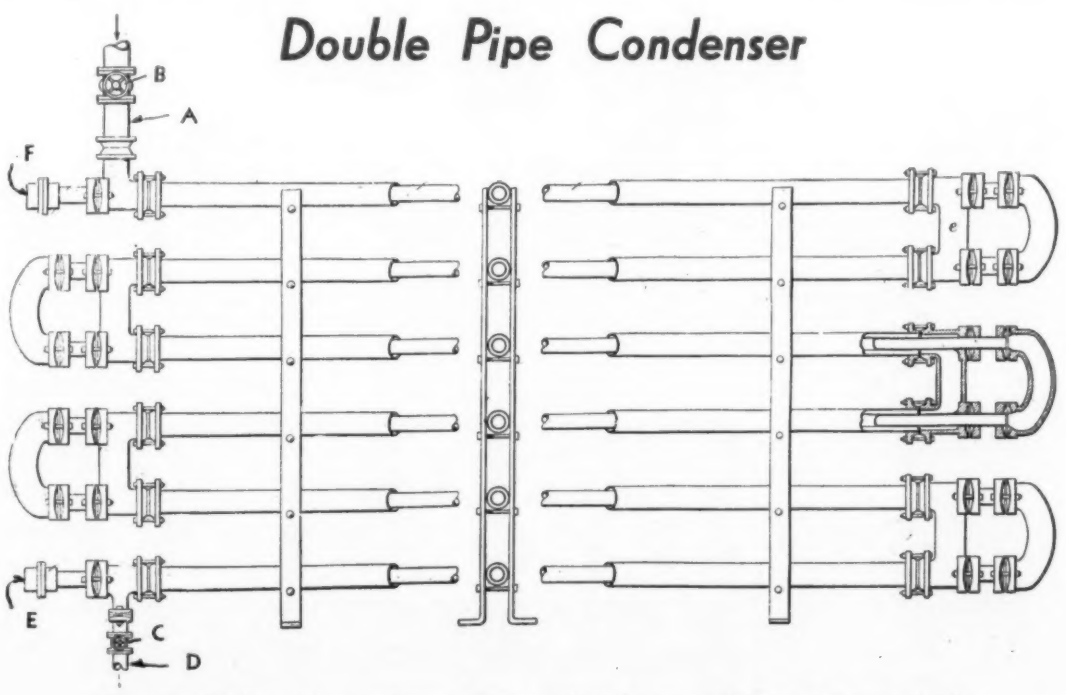


Fig. 48—Double pipe condenser with packing boxes and flanged return bends.

The Buyer's Guide

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are products of established Value

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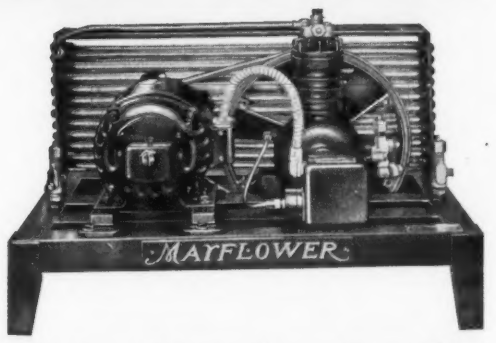
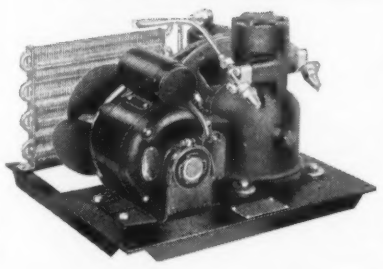


HARDY MANUFACTURING CO., Inc., 100 Davis Ave., Dayton, Ohio

CONDENSING UNITS and COMPRESSORS

FOR HOUSEHOLD REFRIGERATION BY



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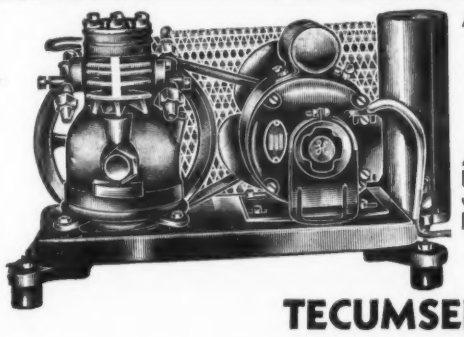

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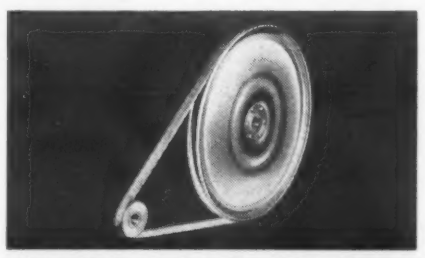

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Service Methods

Replacing Electrolytic Condenser On Capacitor-Start Motor

By Harvie W. Whitby, Sales Engineer and Mid-Western Sales Manager of Sprague Specialties Co.

DURING the last few years the electric refrigeration industry has widely adopted the capacitor-start type motor.

The capacitor start motor introduces the service man to an electrical component which is a decidedly recent development, and of which he, therefore, has very little knowledge—the electrolytic starting condenser.

An electrolytic condenser utilizes an oxide film as a dielectric, and since this film is initially formed by the application of voltage, the tendency throughout the life of the condenser is to maintain, rather than destroy, this film.

In this respect it is not subject to the continual deterioration which takes place in paper and similar dielectrics. In the absence of undue heat and the application of excessively high voltage, the life of the electrolytic condenser is almost infinite. "Infinite" is a difficult word to use, since man has never constructed anything that did not, in time, respond to the chemical destruction of the atmosphere.

Since a definite chemical balance must be maintained for the successful operation of the condenser, one must realize that, however small, deterioration is taking place continuously, and that chemical destruction of the condenser is ultimately inevitable. The most reliable laboratories in the country have impartially investigated this phase of condenser life and estimate it at well upwards of 10 years.

We have indicated that excessive heat and excessive voltage will hasten the failure of an electrolytic condenser. Since the film is formed to a very definite voltage, we can appreciate that the application of excessive voltage will result in increased losses which, in turn, represent heat. Thus we see that the real criterion of failure is temperature.

Such condensers as were offered to the refrigeration industry during the years of 1932-33-34 were capable of safe operation up to 155° F., though only rated at 135° F.

While the ratings of standard condensers have not been changed at this writing, the condensers available today will not be appreciably endangered by operation at as high as 80° C. or 176° F.

Assuming that we have a faulty motor at hand, and that we have determined that the condenser has failed, let us not merely replace the condenser and call the job done.

Let us bear in mind that the electrolytic condenser is rated to stand 20 starting operations per hour, each of three seconds' duration, or a total of one minute of service per hour. The average starting cycle is considerably less than one second.

It has been suggested that we close the motor circuit, and time the period which the switch takes to "kick-out" by speaking the words "one naught naught one"—1001—and that if the start period exceeds this time, the motor and compressor should be checked for mechanical difficulty.

Mechanical troubles, for the most part, result in delayed operation of the starting switch, and also result in overload operation of the motor.

A badly overloaded motor becomes unduly warm, and this heat is transmitted directly to the condenser, resulting in failure. The service man would do well to remember that in the event of very heavy overload for short periods of time, the motor start windings will invariably smoke, and may even fail before the condenser is injured.

With this in mind, one can see that the premature failure of a condenser is invariably indicative of trouble elsewhere, and, too, of trouble that has existed to a greater or less degree over a fairly long period of time.

In terms of voltage rating, the condensers usually chosen for 110 volt motors are rated at 110 volts. Fig. 1 shows the varying relationship between the displaced current and the in-phase current in a 110 volt condenser over a wide range of voltage.

At approximately 140 RMS volts we notice that curve A begins to leave curve B rapidly. The distance between these two curves actually represents the additional losses and additional heat developed in a condenser that is operated above its rated voltage.

This illustrates graphically why the service man should assure himself, when replacing a condenser, that the new condenser is going to operate below 140 volts even at the highest line voltage that the unit is apt to encounter.

Fig. 2 shows the voltage across the condenser plotted against speed, as the motor is starting. We note that at locked rotor the voltage is of the order of the line voltage, and that it increases gradually to the point at which the switch disconnects the condenser. At this point, the average well designed motor applies less than 130 volts to the condenser at 115 volt line.

It may occur to the service man that, in nearly all cases with which he comes in contact, the motor develops considerably more starting torque than appears necessary to operate the refrigerator. This is true, but this surplus is required in very warm climates; in the initial operation of the refrigerator and in the event of extremely low line voltages, etc.

Even though the motor is supplying more starting torque than required, the service man cannot replace a condenser of one value with a condenser of lower value, without inviting trouble.

In Fig. 3 we show the manner in which the voltage across the condenser at switching speed changes with the value of capacity used, and we find that a reduction of capacity from one value to the next lower standard results in an increase of voltage across the condenser which carries it beyond the safe limits already established in Fig. 2.

A careful service man, in replacing a condenser only identified by the motor manufacturer's part number, will equip himself with a condenser unit enabling him to obtain any one of the standard capacity values, and an accurate a.c. voltmeter (preferably covering two ranges, 0-150 volts and 0-300 volts) with which to measure the voltage across the condenser, at switching speed, and with the motor stalled.

While the line voltage at the time of replacement may be anything from 100 to 125 RMS volts (on a 110 volt motor) the replacement should be made upon the basis of having a 125 to 130 volt line. It is safe to assume that the following ratio exists.

$$\frac{LV_1}{CV_1} = \frac{LV_2}{CV_2}$$

For example, if we have a line voltage of 110 volts at which voltage the condenser switching voltage is found to be 120 volts, then

$$\frac{110}{120} = \frac{125}{x}$$

and the switching voltage at 125 volt line is approximately 136 volts.

The service man will invariably be safe in choosing the value of capacity which calculates a switching voltage of 135 to 140 volts at 125 volt line.

Referring to Fig. 4, we have the starting torque of the motor plotted against the value of starting condenser. We note that the torque increases to a point "X" rather rapidly with increase of capacity and with increase in capacity beyond that point the torque drops off rather slowly. Referring back to Fig. 3 we note that increasing the capacity results in a decrease of the voltage across the condenser.

Obviously, then, if the correct value of condenser is not available, replacement can be effected safely with a larger value of condenser but not with a lower value.

It might be well to qualify this last statement, as this is only true of motors in which switching is effected by a centrifugal switch. The larger capacity might disturb the current conditions essential to the satisfactory operation of motors in which switching is effected by a relay. In such motors, no substitution of condensers can be safely attempted.

Generally speaking, standard refrigeration motors will take condensers as shown in the table below.

At no time, however, would we suggest that a service man should arbitrarily conclude the value of capacity required from the above table because individual refrigerator manufacturers

(*Concluded on Page 19, Column 1*)

Graphs Show Necessity for Condenser of Proper Capacity

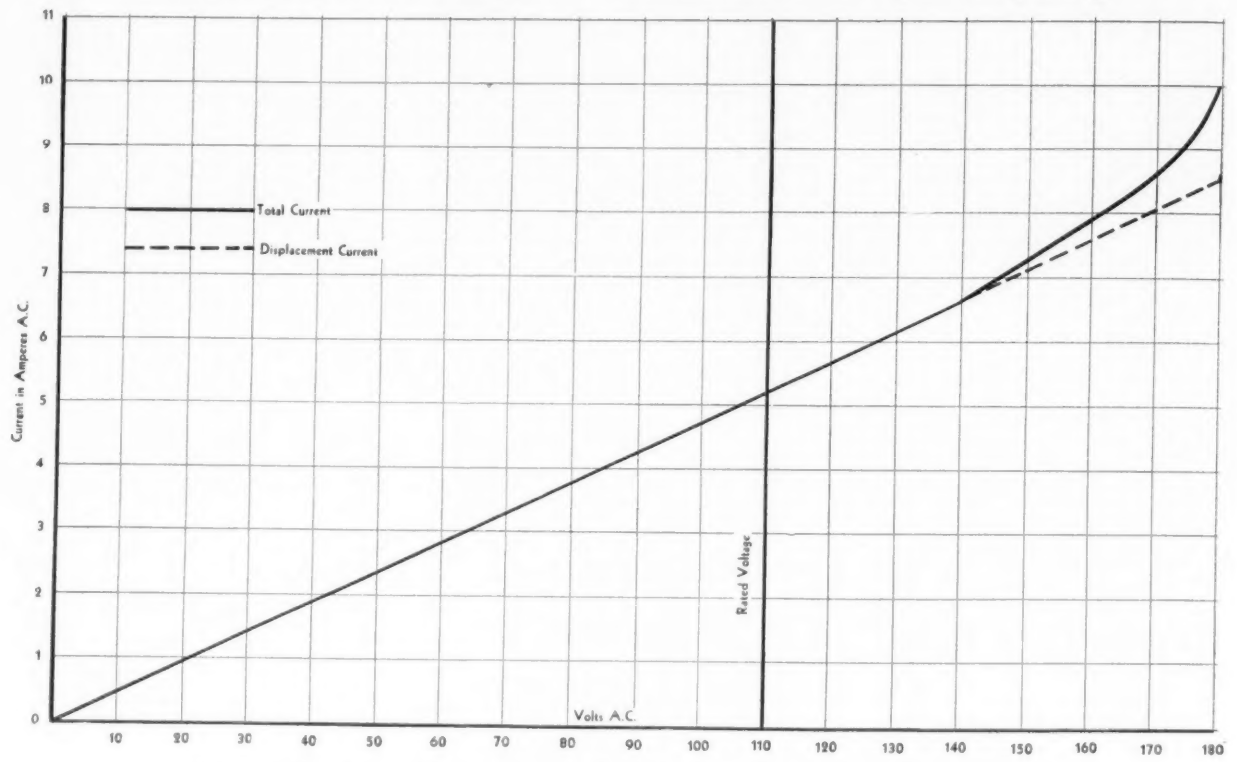

Fig. 1—Varying relation between displaced current and in-phase current.

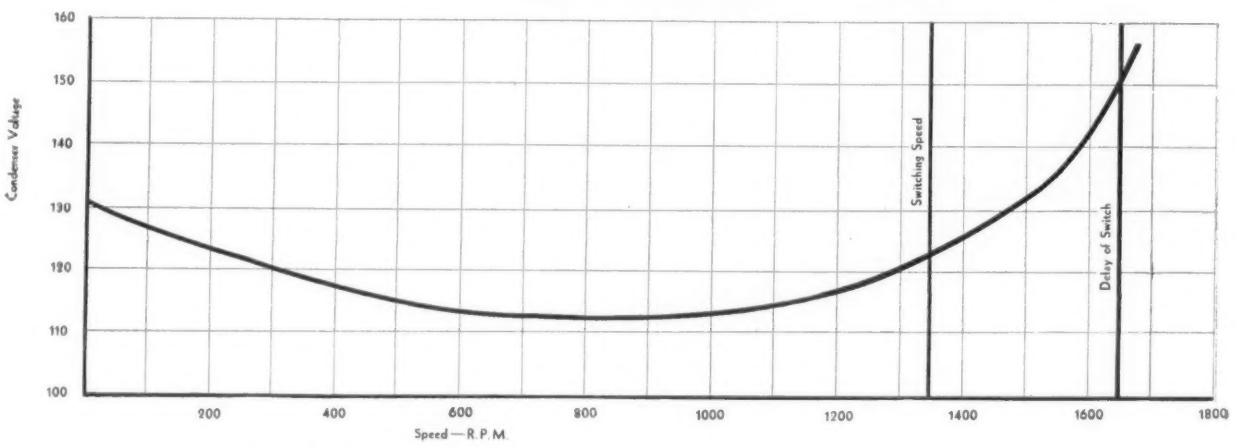

Fig. 2—Voltage across condenser plotted against speed, as motor is starting.

Table of Condensers for Standard Motors

Hp.	110 Volt 25 C	110 Volt 60 C	220 Volt 25 C	220 Volt 60 C
¼	200-250 mfd.	115 mfd.	50 mfd.	30 mfd.
⅕	200 mfd.	110 mfd.	50 mfd.	25 mfd.
⅛	150-200 mfd.	80-100 mfd.	40 mfd.	20 mfd.

Voltage Changes with Varying Capacities

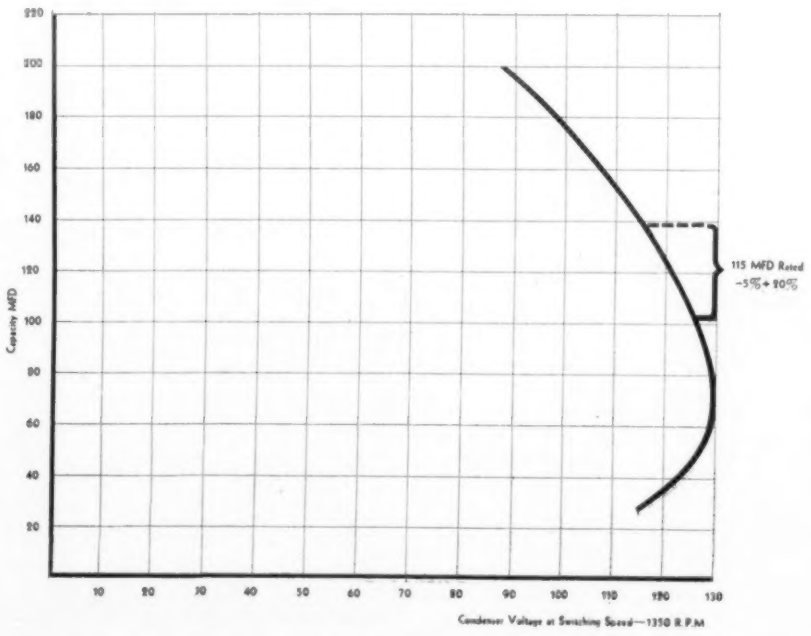

Fig. 3—How voltage across condenser at switching speed changes with value of capacity used.

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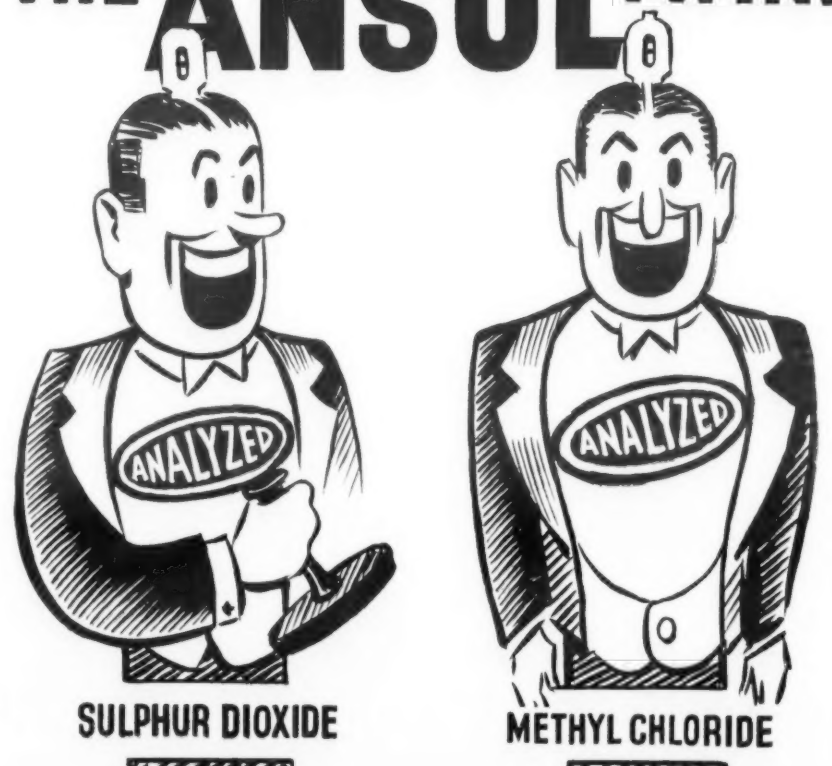

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Torque Plotted Against Condenser Value

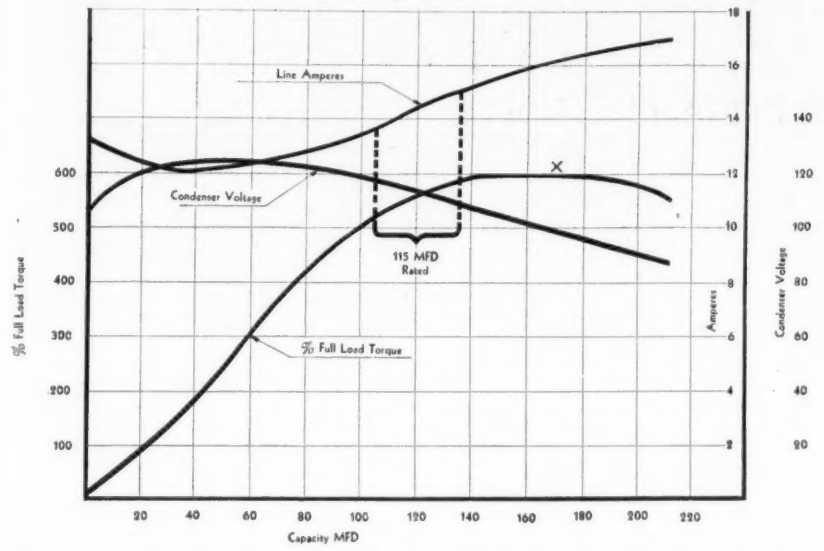


Fig. 4—Starting torque of motor plotted against value of starting condenser.

Replacing Condenser On Capacitor Motor

(*Concluded from Page 18, Column 5*)

may require a form of torque curve not obtainable with the aforementioned value of condenser.

Rather than confuse the service man, it might be well to point out here that there are a few refrigerator motors in the field with condensers on them that are switched out at about 190 volts. Unfortunately these condensers rated at 110 volts.

A simple check, with suitable instruments, will quickly identify these motors. Replacement should be effected with condensers rated at 150 volts which can be supplied by any of the condenser manufacturers.

Chronic condenser trouble on a given installation is usually traceable to faulty operation of one or more of the protective devices. By the same token the service man will appreciate that a condenser capable of continuous duty should be substituted for the electrolytic condenser when any lengthy adjustments of protective devices are undertaken. The electrolytic condenser of today is not a continuous duty device.

While our next and last point is, thankfully, quite the exception rather than the rule, we will occasionally run across a motor so badly burned up as to require rewinding in the local shop fitted for that work.

It is a very important point to note that in re-connecting the windings, the switch should be located at either of the points marked "X" in Fig. 5, but never at point O, and that the condenser housing should be thoroughly insulated from the motor.

Locating Switch on Motor Circuit

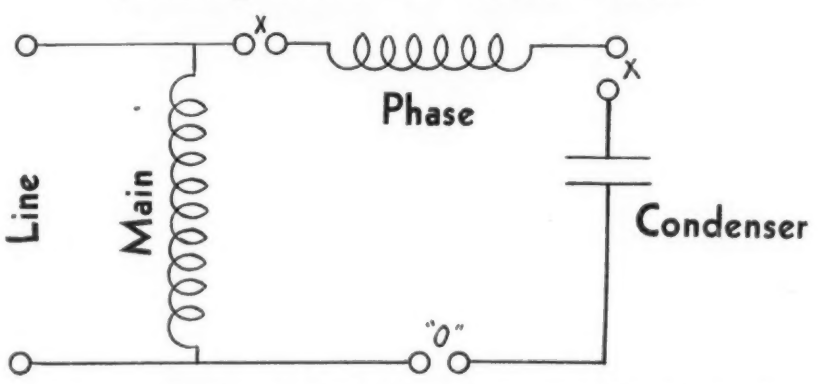
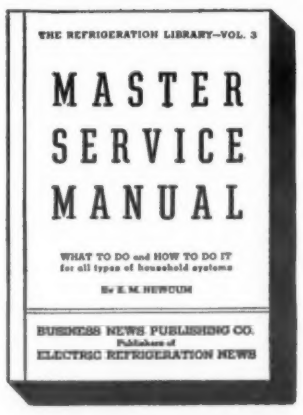


Fig. 5—Points "X" indicate where switch may safely be placed.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Questions

Sales Ranking

No. 2713 (Dealer, Missouri)—"We would like to know how the following refrigerators ranked in sales volume last year:

"Kelvinator, Westinghouse, Frigidaire, Norge, General Electric and Crosley."

Answer: We are unable to furnish you with the standings of *individual* manufacturers as to sales volume of household electric refrigerators last year, as these figures are never made public.

However, an estimate of the total sales of household refrigerators during 1935 was published in the Feb. 5 issue of ELECTRIC REFRIGERATION NEWS. Back copies of the NEWS are available at the cost of ten cents a copy.

1935 Specifications

No. 2714 (Manufacturer, New Jersey)—"Some time in 1935 we submitted to you our specifications and data on our condensing units for your publication together with all others on the market. We will appreciate very much if you will send us one or two duplicate copies of that issue."

Answer: Specifications on commercial condensing units were published in the April, 3, 1935, issue of ELECTRIC REFRIGERATION NEWS, together with the commercial specifications of other manufacturers. Copies of that issue are completely sold out.

However, the REFRIGERATION AND AIR CONDITIONING SPECIFICATIONS book to be published in April, 1936, will contain detailed specifications for all models and makes of both household and commercial refrigerator units. Your specifications will be included.

Commercial Ratings

No. 2715 (Distributor, Wisconsin)—"Please advise whether your bulletin on the rating of commercial refrigeration equipment officially set on a certain standard basis, is now for publication?"

Answer: Standards for rating of commercial refrigeration equipment, about which you inquire, were published in the Nov. 6 and Nov. 13, 1935 issues of ELECTRIC REFRIGERATION NEWS.

Gibson's Address

No. 2716 (Distributor, New Jersey)—"Will you please let me know the address of Gibson Refrigerator Co.? I need a part for the unit compressor 1933 model."

Answer: Gibson Electric Refrigerator Corp., is located in Greenville, Michigan.

Prices of 1936 Models

No. 2717 (Dealer, Illinois)—"We are very much interested in getting price list and models on the following makes of 1935 electric refrigerators: Norge, Crosley, Kelvinator, Leonard, Frigidaire, Coldspot, and also Montgomery Ward make."

Answer: Stories on the new models of all the makes of electric refrigerators about which you inquire have been published in recent issues of ELECTRIC REFRIGERATION NEWS, with the exception of Montgomery Ward, which will appear in a near future issue of the NEWS.

However, prices were published for four of these makes: Crosley in the Feb. 5 issue; Coldspot, Jan. 29; Leonard, Jan. 22; and Frigidaire, March 4.

Other stories on the new models of the refrigerators you refer to were published as follows:

Norge—Jan. 29 issue
Kelvinator—Jan. 8 issue
Leonard—Jan. 15 issue
Frigidaire—Feb. 26 issue

Polar Air Refrigerator

No. 2718 (Service Man, Pennsylvania)—"In looking through your publication, REFRIGERATION NEWS, I was very much interested in the many items of so many different makes of refrigerators. I should like to know if you could give me information on a refrigerator made under the name Polar Air or some such name. The last I heard of it was about six years or so ago.

"If there is such a make of refrigerator, would it be too much trouble to furnish me with the address of the manufacturer?"

Answer: With reference to your inquiry concerning the Polar Air Refrigerator Co., our information in the Sept. 5, 1934 issue of ELECTRIC REFRIGERATION NEWS, which covered the corporate history of companies no longer active in the industry, showed that the Polar Air Refrigerator Co., 1610 North St., Philadelphia, Pa., went out of business some time in 1928. We have no further information concerning this company.

Classified

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☐ Folder: Transferring from large to small cylinders
☐ Circular: Physical properties of various refrigerants
(Write name and address in margin)

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